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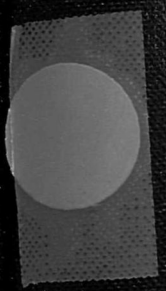

VOL. I.

1887.

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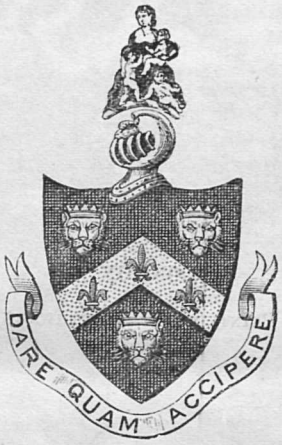

VOL. I.

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1887.

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Guy's Hospital Gazette,

JANUARY 8, 1887.

Preface.

PREFACE!—Why? Also, Where?—"*State all you know about Prefaces, and explain your answer, if necessary, by examples*"—such is the crystallized quotation these questions naturally recall in the Word-Revival portion of the Speech-Centre of our much-examined Editorial mind. To the Methodical, it might seem easy to determine that a Preface should be written, and should be placed, orthodoxically, in front of—whatever is to follow. To the ingenuous and discursive these questions assume, however, an aspect of difficulty not to be solved by such didactic deliberations. Does a book that is intelligible require a Preface? Does any book that is not—not written by Mr. BROWNING—deserve one? Moreover, its customarily obtrusive location seems to require vindication at the hands of the adherents of this worn-out conventionality. It is a bad custom! It is the "Ahem!" of the Orator; the Overture to the Opera; the Apology of the Beggar; the Flourish of Trumpets before the prancing of BOLINGBROKE. Written last—it appears first; read never—it is printed ever. The offspring of its parent-volume, it leads the more-respectable parent by the nose. Can any one show a reason why this pert progeny should precede its progenitor? A calm consideration leads us to the conclusion, indeed, that, rightly regarded, the *Book is its own Preface* (or, to avoid confusion, the book may be termed the *Preface to the Prologue*, or, the *Prologue to the Preamble*). A more real, and, we hesitate to say it, a baser reason for this besetting barbarity is, we fear, to be found in the unscrupulous proclivities of the Common or "Garden" *Editor*, who, mistaking his ponderous excogitations for the airy imaginations of fantastic genius, hangs the electro-plated bauble of his glittering lucubrations, like the fiery lamp of an unqualified practitioner, to the front of his GAZETTE, before the astonished gaze of his deluded readers! But, after all, WE are a Man!—even as "Thomas" also is a Mortal—

> . . . "the feeble tenant of an hour,
> Disgraced by Slavery, *and* corrupt by Power"

—we fall into the common custom; and, refreshed, from the Pot of Editorial Confidence, proceed to settle by inspiration this question, "*Why?*" Oh, Trusty, and Well-beloved! *It is*, to point out: to the plain-minded—the beauties; to the inquiring—the informabilities; to the incapable—the capabilities; and to all stupid persons whatever—the Modesty, Brilliancy, and Utilities of our (Prefaces especially, and also of our) JOURNAL.

After a subsidence, a period of "Masterly" (even necessary) "Inactivity" of several years, GUY'S HOSPITAL GAZETTE springs into new, we hope it may be vigorous, existence, like a subterranean river from its desert-sands, or the re-juvenescent emblem of Fire-Insurance Offices from its ashes. The yearning, felt in literary circles, after the defunction of our lamented ancestor, grew slowly to desire, that waxed, until, at the Annual Opening Meeting of the PHYSICAL SOCIETY, in October last, it culminated in a Proposition, that the GAZETTE be re-established; and, in the words of a distinguished Lecturer, "*Ere, We Are, Again!*"

* * * * *

There have happened, since the disappearance of the former Journal, many changes in that with which we shall, always, be almost alone concerned, the MEDICAL SCHOOL. During those few past years, GUY'S has suffered a succession of the severest blows, in the removal, by the Irresistible Hand, one after another, of FAGGE, of MAHOMED, of MOXON. That last—that all too dear, and all too recent loss, we can but mark, in this our First Number, in what poor manner we may. Of the former GAZETTE he was a chief support, and its most brilliant contributions flowed from his pen, under the signature of PILOCEREUS. A profound and subtle thinker, gifted with a bright and fanciful imagination; with wide stores of knowledge, and extraordinarily acute sensibility—he was not only unrivalled as a diagnostician, and most fascinating as a lecturer, but he was an enthusiast

who formed a tower of strength to any cause he championed, and a terrible opponent in the war against Meanness and Wrong-doing, in action, as in debate. A warm and generous heart won him, not only admirers, but devotees. He took the keenest interest in our Student Welfare; his Friendship was as priceless, as any substitute for it is impossible. To GUY'S, as to every circle of which he was the centre, his death is a catastrophe irreparable.

THE GAZETTE will be conducted, as nearly as possible, upon its former lines. It is intended to be a Record of School News and of Work in the Wards; and will, it is hoped, contain, from now onwards, the *Original Articles* which our Readers are preparing for us. It is hoped, also, that old and new Guy's men will find it useful in advertising locums, or other matters wanted or needed; and correspondence will be limited to matters of "Guyite" interest. Nor do we fail, sanguinely, to hope that, chronicling the Present, it may be a link between present Guy's men, and the Future; old Guy's men, and the Present; all future Guy's men, and the Past; serving to spread and strengthen the Spirit of Guyite clansmanship, and reputation (the boast of our own, the envy of other, schools) all the world over; and that it may record, in the Year Beginning, success and progress, as auspicious for our School, as is, for the Year of the Queen's Jubilee, the re-establishment of GUY'S HOSPITAL GAZETTE!

CLINICAL LECTURE.

DR. PYE-SMITH.

(From Notes by E. C. ANDREWS, M.B., Cantab.)

Dr. Pye-Smith first spoke of anæmia. He related the case of a patient in 10 John who was admitted for extreme dyspnœa.

Dyspnœa may be due to—

1. Obstruction to air getting to the blood, as in the case of food becoming impacted in the windpipe.
2. When blood is prevented from getting to the air, as in cardiac affections.
3. Deficiency of hæmoglobine in the blood, as in anæmia.

In the present case the dyspnœa was essentially due to an affection of the lungs. There was extreme dulness on the left side of the chest and râles. The patient was aspirated, and 15 oz. of semi-purulent fluid drawn off. Three days later there was extreme dyspnœa and the physical signs of lobular pneumonia. Patient was bled to 4 oz. and was temporarily relieved, but died next day. At the autopsy there was extreme lobular pneumonia of the left lung. There was double pleurisy with more effusion than was expected, and severe acute pericarditis.

The case is a somewhat unusual one, as lobular pneumonia is common in children, and when it occurs in adults is usually tubercular or pyæmic. Hence in this case Dr. Pye-Smith's diagnosis was acute phthisis.

Pleurisy with effusion is common with lobular pneumonia, but the pericarditis, which was not detected during life, is much less common. The following symptoms which were present in this patient should, perhaps, have led to a diagnosis of pericarditis—(1) Orthopnœa, which was very marked, and which is uncommon in lung affections; (2) Extreme pallor; (3) the irregular pulse.

The patient in 3 John was next mentioned. Seeing him in bed he was very pale, and looked much older than his age, which was 27. There was no family history of phthisis. He has never been very robust, but was pretty well till last September, when he had a shivering attack and was in bed for eight weeks. He became thinner and paler, and came up to the hospital. His temperature was 102°, and the tongue clean. There was slightly diminished resonance under the left clavicle. No hæmoptysis. The case was thus one of anæmia with pyrexia. After seven days he had night sweats and hectic temperatures. There was also pain in the left loin, but no joint disturbance. The temperature in a few days rose to 104°. There was dulness over the right chest and consonating râles all over the chest, pointing to acute phthisis. The rapidity of onset was remarkable, and there were but few physical signs at first. Phthisis must be remembered as a cause of anæmia.

The other chief causes are:—

A. Secondary—

1. Hæmorrhage-wounds, post-partum hæmorrhage, &c.
2. Excessive lactation, or other excessive discharge.
3. Want of food.

B. Symptomatic—

4. Phthisis, Bright's disease, cardiac disease, rheumatism, convalescence from fevers.
   Purpura, scurvy.
   Poisons, *e.g.*, lead, syphilis, malaria.
5. Chlorosis.
6. Hodgkin's disease.
7. Leukæmia.
8. Idiopathic anæmia of Addison.

In the latter affection nothing is found post-mortem. The temperature is raised and patient gets weaker and weaker and the breathing rapid and shallow. There is much blanching, and patient falls into a state of *coma-vigil*, which lasts for a week or two and is followed by death. Iron and quinine cause no improvement, but arsenic, in large and increasing doses as used by Dr. Bramwell, is most useful.

In the present case the anæmia was not sufficiently marked to lead to this diagnosis, and it looked most like chronic suppuration. The great lesson of the case is, always to be on the look-out for phthisis, for, as Sir W. Gull says, more mistakes are made about phthisis, syphilis, and scabies than about any other diseases.

MASTOID ABSCESS. CEREBRO-SPINAL MENINGITIS, TREPHINING OF MASTOID PROCESS—RECOVERY.

(By F. BEARD. By kind permission of Mr. BRYANT.)

Elizabeth K., æt. 20, admitted into Miriam Ward, on October 10th, 1885, for pains in the back and head, and continued vomiting.

Family history.—Good. Has always been deaf in right ear, from which she has had a discharge for the last six months. Has been subject to severe headaches. A month ago, she felt a severe pain in right ear, and constantly-recurring vomiting set in. After a fortnight's time, she began to feel pain in her back and neck, and "rheumatic" pains in her limbs, and was siezed with attacks of giddiness. She would also wake up in her sleep, and cry out in pain. She has lost her appetite, and had shivering fits from time to time.

On admission.—The patient is an ill-developed girl, looking about 15 years of age, with a clear, delicate skin. She lies in bed, generally on the side, with her hand to her head, moaning. She answers questions when spoken to, but otherwise takes no notice of anything going on around her. Her respirations are gasping and shallow; but her lungs appear to be sound. Pulse 97, irregular and soft. Heart sounds normal. Temperature 101°. Abdomen is strongly retracted; some pain at the epigastrium. Tongue coated with whitish brown fur. Appetite bad, and bowels constipated. There is marked hyperæsthesia in the frontal and occipital regions, and at the vertex of the cranium, and also along the spine, and over the front of the chest and abdomen. The plantar and patellar reflexes are normal. Abdominal reflex exaggerated. There is internal strabismus of the left eye, dating from childhood, and she has double optic neuritis, with tortuous, ill-defined vessels.

There is no redness or œdema over either mastoid process, but some tenderness on the right side. There is a foul purulent discharge from the right ear, and examination with the aural speculum shews a large perforation in the tympanic membrane of that side.

On the 12th there was some fulness about the mastoid process on the right side, and the tenderness was marked. Mr. Bryant saw the patient at Dr. Pavy's request, and considered that there was sufficient indication of mastoid trouble to cut down and examine. Accordingly, the next day, chloroform was administered, and Mr. Bryant made a crucial incision over the mastoid process. The periosteum was found to be thickened and adherent, and on this being stripped off, a portion of the bone was found to be softened over an area about ¼in. in diameter. On probing this softened bone, a little pus oozed up. The mastoid trephine was then used, and the circle of bone being removed, two or three drachms of greenish foul smelling pus welled up. The cavity of the middle ear was then opened up, and the whole well syringed out, and dressed with iodoform gauze and eucalyptus oil.

October 14th. Morning temp., 99·8. Patient had a comfortable night. Little discharge.

The patient continued better until the 20th, when the temperature rose to 104°, and for the next three days it was high at night, but on 26th, it fell again below 100° and continued so up to November 6th, when it rose suddenly to 105° with a well marked rigor.

On examination, it was found that there was a swelling between the mastoid and the angle of the jaw, causing pain on movement of the head—lead and opium lotion was applied.

On the 12th, this enlargement increased markedly in size, and it was evident an abscess had formed. Mr. Bryant opened this on the 14th, and evacuated some pus; for a few days she again improved, but another abscess pointed lower down, which was opened on the 19th. A drainage tube was inserted, and the wounds dressed in the same manner as the original.

From this point recovery was uninterrupted. She began to get up on December 10th, and all the wounds presented healthy granulations. On December 28th, she unfortunately contracted erysipelas, but the attack was a slight one, and on January 8th, she left the Hospital well. There was still some slight discharge from the ear; the optic neuritis had almost disappeared.

REMARKS.—This case is a good instance of one of the troubles, which may arise from a neglected discharge from the ear, and of the benefit which may be given, by affording free drainage to the middle ear.

The diagnosis in this case was somewhat difficult, in fact, it was sent to the Hospital, as a case of Typhoid, which, in many of the symptoms, it resembled.

The main facts, however, pointed in favour of otitis as a determining cause, and, although the indications of mastoid abscess were not as marked as they are in many cases, yet there was sufficient evidence to render an exploratory incision advisable. Meningitis is one of the commonest causes of a fatal termination in cases of otitis media, being only second to pyæmia. The symptoms in this case would agree, in many respects, with a diagnosis of pyæmia, but the optic neuritis pointed strongly in favour of the diagnosis made. It is easy to see, how readily meningitis may be set up by an inflammation of the middle ear, for an extremely thin layer of bone divides the lining of the tympanic cavity from the dura mater, and an extension of the inflammation to the dura mater is readily effected. Recovery from acute meningitis is very rare, but this would appear to be one of the cases, in which it has taken place.

Physical Society.

Meeting 16th December, 1886. Chair—Mr. WACHER. Secretary—Mr. LANE. Members present, 25. Mr. BLACK read a paper on "Albuminuria."

ABSTRACT OF PAPER ON ALBUMINURIA.

By Mr. BLACK.

"Albumen was first detected in urine by Cotugno in 1770, but its relations to pathological conditions existing in the kidney, were first pointed out by Bright in his papers during 1827 to 1831.

Nussbaum proved that albumen escaped from the glomeruli and not from the tubules by his experiments on frogs, which have a double blood supply to the kidney.

The chief theories brought forward to explain why albumen does not nominally appear in the urine, are:—(1) That of Cohnheim, Runeberg, Haidenhain, and others, who maintained that it is kept back by the epithelial investment covering the Malpighian tufts. (2) That of Ribbert who attributes no importance to the epithelial investment, but thinks the capillaries of the kidney possess more cohesion than the other capillaries of the body. (3) That of Senator who argues that albumen is always present in the urine, only in such small quantities at times that it cannot be detected with the reagents we usually employ.

How it is that albumen passes into the urine has been explained in the following ways:—(*a*) It was long ago believed to be due to a mere thinning of the blood. (*b*) Wundt thought lack of common salt in the blood-serum was the cause. (*c*) Canstatt and Prout asserted that a chemical alteration of the blood albumens was the cause. Stockvis, however, disproved all these. (*d*) Rosenstein and others believed albumen to be always exuded from the glomeruli and reabsorbed by the tubes, and when these were damaged so that they could not absorb the albumen, it appeared in the urine; this was disproved by Posner and others. (*e*) The most probable cause appears to be the occurrence of nutritive charges in the delicate epithelial covering of the tufts, so making it abnormally permeable for albumen. (*f*) The nervous system plays an important part in the causation, acting chiefly through (*g*) the blood pressure, which undoubtedly is the main factor.

After describing the experimental investigations as to the effect of increased and diminished arterial and venous presence in the causation of albuminuria, and illustrating them with clinical cases, the causes of albuminuria in renal diseases, various fevers, cholera, &c., &c., were explained, and the paper concluded with a resumé on the causes of albuminuria in persons otherwise in good health."

Mr. G. B. SMITH opened the discussion.

He discussed the theories of Albuminuria, and suggested that intact epithelium prevented transudation of albumen in health.

He considered that distinction should be made between cases where gross lesions existed in the kidney and those in which such lesions could not be found.

Possibly, either increased or decreased blood pressure caused albuminuria, but the former condition was not, however, essential, as albuminuria occured with the latter.

Mr. STARLING argued that simple pyrexia was not a cause of albuminuria, and mentioned a case in which a patient had no albuminuria with a temperature often up 105° F. He considered that only specific fevers gave rise to albuminuria, and that the micro-organisms in these were the chief cause.

Mr. CAMPBELL suggested that albuminuria and glycosuria were allied as both could be produced by excess of certain foods.

He asked for any information concerning a centre for the former condition, the existence of which he thought probable.

Mr. RANDALL wished to know more about the practical side of the subject and its treatment.

He also suggested that the medulla had too much to answer for already.

Mr. ROBERTS was of opinion that albuminuria was never present wtihout the mucous membrane of the kidney having undergone some definite change, and that no person passing albumen could be considered healthy. This change in the mucous membrane, might, he thought, be excited by some irritant in the urine.

Mr. TARGETT related a case of albuminuria probably due to diminished blood pressure. The albuminuria often following on head injuries, might be accounted for by a lowered blood pressure impairing the vitality of the renal epithelium.

The albuminuria following extensive surface burns might be due to irritants, products which should have been excreted by the skin passing by the kidneys and irritating their epithelium in so doing. The congestion of all the internal organs might have something to do with it.

Mr. SCOTT was of opinion that changes in nutrition of the renal epithelium was the antecedent of all cases of albuminuria, and that this condition might be produced by irritants or by increase or decrease of blood pressure.

Mr. FARR asked whether intermittent hæmoglobinuria occured in perfectly healthy people.

He agreed with Mr. Scott as to the causes of albuminuria.

Mr. FISHER further discussed the theories of albuminuria. He thought other organs were usually affected in hæmoglobinuria besides the kidneys.

Mr. BLACK replied briefly.

Hospital News.

ON DUTY FOR JANUARY.

House Physicians.—Messrs. A. H. Tubby, G. E. Halstead.
Junior Do. —Mr. J. W. Washbourn.
House Surgeons.—Messrs. S. Wacher, S. E. Prall.
Junior Do. —Mr. F. F. Burghard.
Senior Resident Obstetric.—Mr. H. Lund.
Junior Do. Do. —Mr. S. W. Owen.

Note.—Gentlemen who are disengaged, and can take "Locums" or "Assistantships," should send in their names, with particulars, to the Medical School office in time for the new list.

INTERESTING MEDICAL CASES IN THE WARDS.

2 Philip—Hodgkin's Disease.
5 ,, Aneurysm.
10 ,, Lateral Sclerosis with atrophy of Muscles of Arm and Hand.
13 ,, Locomotor Ataxy.
30 ,, Hemi-opia.
40 ,, Spastic Paraplegia.
21 Mary—Melanotic Sarcoma.

INTERESTING CASES IN SURGICAL WARDS.

2 Luke—Recurrent Sarcoma of Arm and Hip Disease.
5 ,, Prostatic Abscess; Stricture; Cock's operation.
5 ,, Epithelioma of Cheek.
18 Job—Aneurysm of Femoral. Ligature of External Iliac.
18 Cornelius—Concussion of Spine.
3 Lydia—Naevus on Shoulder.
22 ,, Renal Abscess (Pyelitis?); Abscess in Groin.
12 Lazarus—Growth in Abdominal Wall.
20 ,, Enlargement of Knee (?)
19 ,, Irreducible Hernia and Hydrocele.
4 Dorcas—Thyroid Tumour.
21 Naaman—General Enlargement of Glands and Pulpy Knee.
Philip Private Room—Hysterectomy and Removal of Appendages.
Clinical Private Room—Double Ovariotomy.

INTERESTING CASES IN EYE WARDS.

37 Ruth—Interesting Case of Choroiditis.
27 ,, Proptosis of Right Eye; Orbital and Temporal Abscess; Gummata.
19 Barnabas—Transparent Ulcer of Cornea.
15 ,, Retinitis Pigmentosa.
10 ,, Transplantation of Skin from Arm to Eyelid.

CHRISTMAS EXAMINATION IN ANATOMY.

December 22, 1886.—FIRST YEAR'S STUDENTS.

HEAD AND NECK.—1. Describe the Frontal Bone. 2. Give the attachments of the Rectus Capitis Posticus Major, Scalenus Medius, Occipito-Frontalis and Masseter Muscles. 3. Describe the Sixth Costo-Vertebral articulation.

UPPER EXTREMITY.—Describe the upper end of the Humerus. 2. Give the attachments of the Brachialis Anticus, Subclavius, Triceps, and Supinator Brevis Digitorum Muscles. 3. Describe the Inferior Radio-Ulner articulation.

LOWER EXTREMITY.—1. Describe the upper end of the Tibia. 2. Give the attachments of the Sartorius, Gluteus-Maximus, Tibialis Posticus and Extensior Brevis Digitorum Muscles. 3. Describe the Hip Joint.

ABDOMEN.—Describe the Sacrum. 2. Give the attachments of the External Oblique, Levator Ani and Pyramidalis and Coccygens Muscles. 3. Describe the Sacro-Vertebral articulation.

Guy's has maintained its high reputation at the recent London University Examinations.

At the M.D., 8 out of 31 through were Guy's men. At the B.S., 7 out of 14 were Guy's men, and in Honours, 3 out of 7. One of these, F. F. Burghard, obtained the 2nd position in the 1st Class.

At the M.B., 8 out of 36 through, were Guy's men. In the Honours, 7. J. W. Washbourn was *facile princeps*, taking the Scholarship and Gold Medal in medicine, and the Gold Medal in Forensic Medicine, besides getting First Class Honours in Obstetric Medicine.

As usual, in Forensic Medicine, we were far ahead of all other Medical Schools. The following also obtained Honours:—Burghard, Halstead, Taylor, Prall, Muspratt.

The second number of the *Gazette*, and all succeeding numbers, will contain short notes of the most interesting P.M.'s that have been made during the preceding fortnight.

We are precluded from want of space from inserting "Three Cases of Ulcerative Endocarditis," "Football," and "Christmas Entertainments," which will appear in our next.—ED.

In Memory

OF

WALTER MOXON.

Sorrow herself can scarcely sing
Of him; nor needeth it a stave
Of melody, our hearts to wring,
Already crushed beside his grave.

He webbed himself with love around
So good he was, so calm, and great—
None knew him, who felt not the wound
Of that dull stroke of frenzied fate.

So suddenly, our happy skies
Darkened, with horror's wings of gray,
And shapeless form, and lightless eyes
And livid face, and shears to slay!

Moxon was dead! And there did fall
No sign in heaven, or earth or sea—
Only a drear voice seemed to call
"Death!" in our ears, continually.

And words were vain for this, no art
Can picture such a drear eclipse;
Half choking sorrow grasped our heart,
And trembled, speechless, on our lips.

* * * * *

Summer was lapt in dreaminess
Of very joy, of fruits, and flowers,
Of cornfields, waived by wind-caress,
And sounds that lulled the lazy hours—

The brown bee's murmuring monotone,
The lark, high in the cloudy glow,
Singing in ecstasy, alone,
Her trembling oratorio—

The river stretched its opal links,
Gleaming towards the briny tide;
The gorgeous loose-strife on the brinks,
Mirrored itself in purple pride.

All things beneath blue Heaven above,
Obliviously bright and gay;
Them troubles neither grief, nor love!
They flourish—and men pass away

Like feathers, blown from nesty eaves,
Loose, on the viewless winds of fate—
A rustling train of withered leaves,
Their hopes and joys made desolate.

So He was dead! For him should beat,
No more, sweet Nature's changeful flow;
No more for him, in cycles sweet,
The softly-footing seasons go!

Bright as the sudden comet, cast
Forth on its wild elliptic sweep:
Swift, wondrous, flashing, so he passed
And faded in the unknown deep!

* * * * *

Oh! Mother Nature, thou dost speak
In mighty chords, to mighty men;
Only the coward and the weak,
Know not the writing of thy pen!

His was the greatest, noblest mind
That laboured e'er with love to heal,
Or ever taught poor human-kind,
To struggle, triumph, think and feel!

His smile—spoke more than words could teach!
His words—like ripples of the sea,
Broke forth—as waves break on the beach
In foamy music ceaselessly!

The warmest heart that ever beat,
The firmest friend who ever stood;
His presence seemed—as one should meet
A God, among the multitude,

Whose words are treasured up as gold,
Whose labours live for future days!—
A Man, of nature's noblest mould,
Made human, to reap higher praise!

To him, all living things that be
Whispered a sweet mysterious tongue:
It throbbed from earth, and sky, and sea,
And drifting stars joined in the song.

Breathings of life divine and free,
Made magic music in his ears;
Voices of immortality
Called to him from the whirling spheres.

All things must change and pass away;
Is not our life a borrowed breath,
A glorious cycle of decay?—
They are one only, Change and Death.

High on fast Fate-o'ertopping peaks,
He holds a new triumphant place,
Above the Sea of Things that breaks
In worlds, and years, about its base!

The faltering plumes of unbelief,
Pass never those abysses dim;
On Faith's strong wings, he soared past grief
To gain that haven fit for him!

Brave Spirit! If, in other form,
Thou lookest still on us below,
Know! that we only wait the storm,
To whirl us to thy side also!

But, as round earth the rainbow flings
The girdle of remembered God,
Always, thy memory's halo clings
About the precincts thou hast trod!

Guy's, 1886.

NOTICE.

The GAZETTE is conducted, for the present, under the Superintendence of the following:—

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Clinical Editor: E. H. STARLING.
Sporting Editor: R. M. H. RANDELL, M.B. Lond.

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The Committee will be always glad to add to their number.

DR. CARRINGTON has kindly offered to be TREASURER.

Financial and Advertising Editor: Mr. C. H. WELLS.

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Passim.

A NEW CLUB.—A Meeting of Senior Men was held a fortninght since at Mr. ARBUTHNOT LANE'S house, to consider the practicability of starting a New Club in the Hospital. The old one affords, at present, only the convenience of a meal at midday. It is proposed that the whole of the former Philip Ward should be used for such a purpose, it being understood that games of chance and cards should be excluded. It is suggested to divide the Ward up into four divisions, Dining Room, Silence, Reading and Smoking Rooms; and Lavatories, which will be a welcome luxury, are to be fitted up. It is to be hoped that means will be found for the speedy establishment of the Club; and that, once established, it may not be hampered by so many restrictions as to be useless for purposes of recreation. Gambling is obviously undesirable. But we know no game which provides such refreshing mental relaxation, independently of money-points, which can readily be taken up, and left off, in brief intervals of leisure, as WHIST. Eminently adapted to Medical Education, it improves the powers of memory, of diagnosis, and of observation. Unfortunately identified with four-sided paper symbols, it, nevertheless, consists of a series of abstractions calling out the highest mental functions for strategy and calculation, and is not to be associated, and, it is hoped, will not be banned in the common category of "Games of 'Cards.'"

We understand that a volume is in the press, and will shortly be published, under the name of *Pilocereus, and other Papers*, containing some of Dr. Moxon's contributions to old volumes of the *Guy's Hospital Gazette*, one of his fascinating Introductory Lectures, and his Paper on Alcohol, together with others of general interest. Should a general wish be expressed for the re-publication of some of the more important of his contributions to medicine, such as his Paper on Aphasia, we should hope it might be gratified. The edition is to be as cheap as possible—but everyone should buy it.

The Medical Chronicle.—Speaking of publications, very few men seem to know of an excellent monthly journal *The Medical Chronicle*, edited by (the brother of a late most popular fellow-student) Dr. James Niven. It contains excerpts of the best recent work from all the foreign journals, so that it keeps one thoroughly abreast of contemporary progress abroad. The last number contained an interesting account of cases of Tubage of the Larynx in Diphtheria, *vice* Tracheotomy. We have not seen this operation done at Guy's yet, but as eleven cases died out of a recorded thirteen, perhaps it is undesirable. The tube, after passage, is retained without discomfort. One would apprehend that the chief danger would be conveyance of contagion along the tube to parts lower down. *The Medical Chronicle* is the best English monthly that we know, and is worth more than its price, which is only two shillings.

Green Extracts.

"LES BACTERIES *et leur role dans l'Anatomie et l'Histologie Pathologiques des Maladies Infectieuses, par A.-V. Cornil et V. Babes.*" *Paris, 1886. 2nd Edition.*

Dated May, 1886, well-printed, clear and comprehensive in style and matter, and profusely illustrated by excellent chromos and other drawings of nearly every object susceptible of illustration, this volume leaves very little to be desired, and should be read by everyone who would be well-versed in, and abreast of recent, Bacteriological investigations. The drawings are always careful, and a steel-plate, forming the frontispiece, gives beautiful representations of all the well-marked common varieties of Pathogenic Microbes, and is the work of Professor Babes. The microbes are all drawn to the same scale of 1 m.m. to 1 μ. (*i.e.* magnified 1000 diameters).

The introduction, which is chiefly a tribute to Koch and to Pasteur, is followed by an excellent general sketch of the Schizomycetae, their forms, distribution, and vital relations. Upon disinfectants, and the products of putrefaction, there are valuable chapters, which we extract more fully. The rest of Part I. is taken up with *technique*, methods of experimentation, and a description of maladies following, or accidental to the experiments, in the animals inoculated.

A brief general résumé of all the known varieties of Microbes occupies 150 p.p., which are well filled, and together with the other portions, need, and deserve, careful study. The rest of the work is taken up with the Infectious Diseases of Animals, and of Man, studied in fullest detail.

The classification adopted by the Authors is one of convenience, and their four groups include, as they say, all the Pathogenic Microbes. The cumbrous classification of Cohn, and the complicated sub-divisions of Rabenhorst, and the elementary familiarities of Van Tièghem, are given, but very properly rejected. Bacteriology is yet in its infancy, and the path of progress can only be obstructed by gaudy systems, built on, what are as yet, but shifting observations.

MM. Cornil and Babes' groups are briefly :—

MICRO-COCCI (including *Strepto-cocci*, *Staphylo-cocci*, *Asco-cocci*, *Sarcinae* or *Tetrageni*, and the *Clathrocystis* of Ray Lankester). These are defined, generally, as small, globular cells, dividing cross-wise to form chaplets, irregular masses, or zoogloeae

BACTERIA (*Fermentative*, *Pigmentative* and *Pathogenic*). 'Little rods, very short, which may during their evolution, become ovoid, or larger rods, or filaments, straight or curved.'

BACILLI (Fermentative, Pigmentative, and Pathogenic —*Bacilli* or *Vibriones*). 'Long rods, usually having spores; straight or curved—(vibriones).'

SPIRO-BACTERIA — 'in spiral filaments' — (including *Spirilla*, *Spirochaetae*, *Leptothrices*, *Beggiatoa*, *Streptothrices*, and *Monades*).

It is well known that many Microbes exhibit changes of form during growth, especially varying in different media. *A priori* this was to be expected, since change of form is part of the connotation of life. Various alterations, setting aside confusion of species from imperfect observation, in shape and size, due to growth or fructification, or sickness and decay, in the same single species, are not to be dignified with particular names and subdivisions: BARY shewed that *bacillus megaterium* went through a cycle of gradations of change, from a small ovoid to a long chain of longer rods, during the course of shore-formation :

Prof. Babes' own observations shewed that the cholera bacillus when dying shews local bulgings, and finally breaks up into granules (which are uninoculable); that in many schizomycetes (those of vinegar, hay infusion, charbon) in a chain of cocci, here and there, cocci will appear larger or smaller, or more transparent than the rest, and these break up into grains and die. Most species will elongate into threads, and many shew spores. The cocci of Streptococcus of Phlegmon are of all sizes. The Pneumcoccus may be rod-shaped, as that of fowl-brood. And in Cholera, he has seen the cultivation assume the form of small round grains, commas, spirilla, or threads of varying diameters. Hence the authors infer a limited polymorphism. In the same sense it may be said that a plump baby, a withered old man, and a healthy adult with a white leg are polymorphous varieties of Homo. But there is nothing like the differentiation of the polyps which will only grow in the shell that has been occupied by the hermit crab, or the cycles of the hymenopteræ. Still practically the question is very important for observers. And the evolutionist might expect here if anywhere where the like cycles are so brief and rapid to find evidences of that origin of species by adaptations and selection which takes place so slowly if it be still going on in the higher kingdoms.

To the London Student who (Heaven knows why—experiments on animals not being *necessities*, and apparatus costing little) is provided with no opportunities whatever of studying methods of observation and cultivation of the germs of the Fevers by whose bedside he has to stand in ignorant profundity, like an undertaker's mute, and of the pyaemic agents which he only too often is the unconscious distributor of—to the Student, the chapter on technique is especially valuable. MM. Cornil and Babes seem to prefer gelatinised serum, after Koch, to which 1 % of *agar-agar* is added (agar-agar is the native name for the sea-weed *Gracillaria lichenoides*, growing, and much used as an article of diet, about Ceylon. It should be mentioned in the new Dictionary of Medical Terms of the Sydenham Society, but is not). It gives stiffness to the preparation and interferes very little with transparency.

At present, more practically interesting are the notes on

ANTISEPTICS.

MM. Cornil and Babes have unfortunately given us nothing original on this head. And this is much to be regretted, as the subject is now of vast importance, and observers appear to differ considerably.

They borrow the following table from *Duclaux* (we have reversed the figures opposite *corrosive sublimate*, since, as they stood, it appeared that less of that agent was required to *sterilise* a tube full of germs, than to hinder their development). And the figures have been given as nearly as possible in round numbers, calculated from the number nulti granuries of antiseptic drugs added, pure, to a litre of meat-infusion "crowded with bacilla," the first column showing the strength of the infusion in the antiseptic which arrested growth of microbes, the second that which sterilised the infusion by killing them, bacilli and spores.

Antiseptic.	Strength of Solution which arrested growth.	Strength which sterilised.
Chlorine	...1 in 2500	...2½ in 100 (by vol).
Corrosive Sublimate	..1 „ 1200	...1 „ 600
Chloride of Lime*	...1 „ 400	...5½ „ „
Bromides	...1 „ 250	...3 „ „
Sulphurous Acid	...1 „ 200	...5 „ „
Sulphuric Acid	...1 „ 200	...8 „ „
Iodine	...1 „ 200	...2½ „ „
Picric Acid ...	...1 „ 100	...6 „ „
Ess. of Mustard	...1½ „ „	..26½ „ „
Benzoic Acid ...	...2½ „ „	...7½ „ „
Pot. Permang ...	...6½ „ „	...6½ „ „
Thymol	...8 „ „	..33½ „ „
Ess. of Eucalyptus	...8 „ „	..90 „ „ (did *not* sterilise)
Chloroform ...	..10 „ „	..93 „ „ („ „)
Salicylic Acid ...	..15½ „ „	..22¼ „ „ („ „)
Borax	..18 „ „	..45 „ „
Carbolic Acid ...	..31 „ „	..79 „ „
Alcohol	..69 „ „	..89 „ „

* At 98°c.

We have, it will be seen, arranged the above in the order of efficacy for arresting growth, since practically one can hardly ever hope to sterilise the contents of a wound; and the figures which represent sterilising strength seem to vary very irregularly, and to bear no relation to that which will arrest the growth. Duclaux's table gives another column of strength which *hinder* development; and each column of figures giving positive results is accompanied by a column showing the limit of strength which may be reached, and not hinder, arrest or destroy bacterial growth.

Upon the bacilli of charbon antiseptics appear to act more energetically: some figures are here given as quoted by the authors from *Koch*, whose researches are, they say, the most careful, and *Warrikoff*, whose are more recent—both conducted upon charbon bacilli, and spores.

Antiseptic.	Strength to arrest growth.	Strength to arrest growth.	To kill spores.
Corrosive Sublimate (Koch)	1 in 300,000	1 in 100,000	1 in 20,000 (in ten min.)
„ (Warrikoff).	...	1 „ 20,000	
Iodine (Koch)	1 „ 5,000	1 „ 500	...vapours kill in 48 hrs.
„ (Warrikoff)	...	1 „ 56,000	
„ (Davaure)	...	1 „ 1,500	
Carbolic Acid (Koch)	1 „ 400	1 „ 100	1 in 20 (in 24 hrs.)
„ (Warrikoff)	...	1 „ 600	
Hydrochloric Acid (K)	...	1 „ 1,700	
„ (Warrikoff).	...	1 „ 600	
Acetic Acid (Koch)	...	1 „ 400	
„ (Warrikoff)	...	1 „ 250	
Oil of Pepperment (Koch)	1 „ 300,000	...vapour kills spores in 48 hours.	
Ethyl Alcohol (Koch) / Ess. of Mustard	...	"*une très petite quantité*" kills bacilli and spores (in 48 hrs., diluted).	

Arsenious Acid and Petroleum do not kill the bacilli.

The contemplation of these tables is more surprising than satisfactory with regard to the most popular antiseptic. It is true that 1 in 400 of carbolic acid will arrest the growth of the bacilli of carbon; but this is only by its constant presence in that proportion. Can a solution of this strength be left in a wound for 24 hours? What is wanted is an agent to destroy localised germs by one or two applications or irrigations, as well as to erect a barrier against their access to a sore. Obviously, since it takes, according to the most favourable report, a whole day's contact of a 1 per cent. solution to kill *bacilli*, and of a 1 in 20 solution to kill spores—without the destruction of which, disinfection of instruments, still less of wounds is not accomplished—the use of carbolic acid, according to ordinary methods, may be looked upon with very grave suspicion as to the virtues of this *Pecksniff* among antiseptics. But, when a reference to Duclaux's table shews that 31 *per cent.* will arrest growth, and 28 *per cent. will not*, and that 79 per cent. of pure carbolic acid is needed to sterilise an infected solution:—when, moreover, we find MM. Cornil and Babes themselves gravely saying (p.47). "A mixture of a concentrated solution of carbolic acid, with an equal volume of alchol, *or the acid itself*, directly dissolved in this liquid, may be certainly reckoned among the surest of antiseptics!.....In a proportion of 1 to 5 per cent. its effect is neither lasting, nor reliable. Its effect as vapour is almost nil."—When these facts are considered by the side of the perfect reliance which a large modern school places on a syringeful of '1 in 40' trickled over a wound to prevent Pyaemias, or the dip of a knife into '1 in 20' to secure disinfection, or the dissemination of ten cubic feet of disagreeable 'One in Twenty' steam through the air of a theatre to purify it,—the contrast is too delicious! Carbolic acid falls from its eminence like Dagon before the Ark of the Covenant. It appears, too, that Eucalyptus is an agreeable fraud, and that Salicylic Acid is no better. It would appear that germs are not destroyed by contact with these drugs, almost pure and undiluted. Permanganate of potash, thymol, borax, and alcohol, may apparently be swept with proportionate contempt into the lumber-room of surgical and hygienic antiquities. Of the remainder we have to select those which will disinfect wounds when used in a proportion which may be left in prolonged contact with their surfaces without constitutional ill effects arising. It is possible that a solution of chlorine of 1-2500 might be used, although it would not sterilise. Picric acid is too poisonous, and chloride of lime would appear a convenient agent, but it could hardly be used boiling. Moreover, MM. Cornil and Babes say that contact witb this substance in '5 per cent. solution, only kills bacteria, after ten days'—thus differing widely from Duclaux. Bromides rank fairly high both as arresters of growth and sterilisers. It might be advisable to try them. If not locally irritants, they could be used for the double purpose of a dressing and a narcotic, as absorbed into the system. The acids are painful of application. There appear to be left then only iodine and corrosive sublimate, and it is fortunate that they secure the desiderata of efficacy, in non-poisonous quantities, of cheapness, and of easiness of application.

Corrosive, indeed, appears to be a prince among antiseptics. For although the higher estimate (of Koch) of its efficacy appear to depend upon a peculiar liability of the charbon bacillus and its spores to become "salviated" yet it appears that ½ gr., which, in a wound, may be taken to be be a non-poisonous maximum of the drug, will arrest growth in about 2 oz. of fluid, "crowded with bacteria," and probably a much smaller proportion will be effective in most cases where the species are not so numerous.

Iodine which may be used in larger quantities and is less dangerous upon absorption, is practically scarcely less potent as an antiseptic (when the effective strength is multiplied by the greater dose available).

All the drugs mentioned on Duclaux's list would appear to be effective for disinfecting articles, which can be soaked in their solutions (in water) for 24 hours; and will serve for purposes of Hygiene.

With regard to disinfection of chambers and clothes, by vapour, MM. Cornil and Babes remark that, sulphurous acid 'destroys superficially lying germs only—if 1 per cent. of this acid is placed in the air of a chamber, it *suffices to disinfect the walls and surfaces* of things. *But the spores are not destroyed* by this proceeding.' (p 47.)

This is misleading in practice we should think. How can a place be disinfected if the spores of infection are *not destroyed*? The vapours of iodine, bromine, and chlorine, kill after a day's exposure. But the most interesting observation of all is the extremely high value assigned to the vapours of oil of mustard (Babes) and oil of peppermint. According to Koch the vapour of the latter arrests charbon growth when present only in the proportion of 1-300,000. And its vapour (more concentrated ?) kills the spores in 24 hours. According to Babes, one drop of mustard oil, under a large bell-glass, killed all his spores in 48 hours. The latter is highly irritant; but oil of peppermint is harmless, easily obtainable, and ought to be tried extensively. There is no bar to using it as a dressing, in solution. It might, and ought to, be found useful for inhalations in infective lung diseases. (The reviewer intends to make observations as to its utility, possibly in phthisis.) [Its use in colicky affections of the bowels is probably, it seems to me, dependent on destruction of the many ferments and bacteria, producing flatus there, of gases of decomposition.]

Lastly, the discrepancy of Koch's statement about ethylic alcohol from those of all other observers will strike every one. Possibly this is a misprint for *Amylic*? which has a well-known antiseptic action.

We have dealt thus long with antiseptics because of their great practical import. The next portion of the volume gives an excellent résumé of work in the investigation of the cadaveric alkaloids *v.* ptomaines, produced by the action, in great part of the bacteria themselves, which set up putrefaction. We hope to give a full abstract of this part in a future number.

LEONARD BRADDON.

(To be continued).

THE CRICKET CUP.

For the last three successive years our Cricket Eleven have won, have been presented, and have kept, the INTER-HOSPITAL CHALLENGE CUP. It is understood that after three successive victories the winning club may, on payment of thirty guineas, retain it perpetually as their own property. At the eleventh hour a technical infraction of the rules is asserted which threatens to deprive them of the trophy won by their exertions. The case stands thus:—The rules* of the United Hospitals Committee lay down "that any *member* of a Medical School is eligible to play in the Inter-Hospital matches, who does not exceed four years standing." It is contended (by a representative of St. Thomas's) that Guy's have infringed this rule by playing in their eleven a gentlemen who was not, within the meaning of the rules, a "member" of the Hospital.

A Meeting of the UNITED COMMITTEE, held upon November 28th, to consider this question, was adjourned until December, that it might be more fully representative of all the Hospitals. Upon that date Mr. CORLYN (of University, where it was held), took the chair; and Mr. CARR, brought forward a motion to the effect that "Guy's" had infringed the rule mentioned by playing Mr. COLCLOUGH, who was not (in his view) a member of Guy's Hospital at the time when the match was played, and ought, therefore, *to be disqualified from holding the cup.* When, at a later period of the evening this motion was carried, it appeared cast in another form, being divested of the last four words—a most, as it will appear, important alteration. It was unfortunate that, as it was first discussed, the motion was not laid in writing before the Committee. The discussion turned upon the question. What is a member? The facts, which are simple, are briefly these:—In 1883 Mr. Colclough was entered as a Medical Student upon the general register. In the summer of 1885 he paid fees to, and was placed upon the register of Students of, Guy's Hospital. The fee which was then paid entitled him to attend classes on subjects for the Pre. Sci. (Lond.) Examination. Those classes were all he did attend, but the fee paid for them is recognised and allowed at Guy's to be part of the perpetual fee to be paid for all subjects upwards; and Mr. Colclough was considered by the Dean as a Student, a Member of the Medical School; to certify which Dr. Taylor wrote out a formal declaration.

The production of a formal assertion, by the Dean of the Medical School, to the effect that the person thereinmentioned was actually a member of, being a student at, that Medical School would have been sufficient for ordinary mortals. But the representative of St. Thomas's Hospital, equally with the members of the Committee who sided with him, was clearly not of the run of ordinary minds. When Mr. Scott produced the Certificate of the Dean of Guy's in answer to the assertion that Colclough was not a member of our School, the proposer of the motion rejected any definition by any extraneous authority, and contended that the spirit of the rule was violated, at the same time admitting that the letter of the law had been observed. The Committee were then asked, since the ordinary acceptation of the English word "member" was ignored, to give it a definition from an Inter-Hospital Committee point of view, an invitation which was, however, not acceded to—behaviour evincing discretion more than justice.

The discussion then wandered.

It was asserted that Colclough was not studying subjects properly medical: to wit, botany and chemistry, physics, and zoology; that at University, at King's and other places the Preliminary Scientific Class was held distinct from the Medical School; that having, about the time at which his proper standing was now the subject of debate, competed for an Entrance Scholarship at St. Thomas's, Mr. Colclough had *ipso facto* declared himself not a member of Guy's, at that period at any rate; that the rule had been drawn up with the special intention of excluding "Preliminary Scientific Men" only, in support whereof a letter was read from Mr. Ryder;† that, finally, the precedent was bad now, and would be more disastrous hereafter.

Such were the flimsy arguments which were brought forward to traverse the rights of the winning hospital. Each point was repeatedly demolished by Mr. Scott, Mr. Arthur Taylor, Dr. Martin, and Mr. Braddon. It was pointed out that the Preliminary Scientific was purely a medical examination; that the subjects were so regarded not only at Cambridge (1st M.B.), Oxford, Durham, and other universities, but that chemistry, botany, and physics were subjects necessary to pass in for the 1st Conjoint Examination of the R.C.S. and R.C.P. of London; moreover, as Mr. Braddon pointed out, who is to define the limits of what is, and what is not, a subject bearing upon medical sciences? There is no hard and fast line; and any subjects made a necessary study for a medical degree or diploma, must be regarded as medical sciences, and their studiers, so far, as medical students; nor did, Dr. Martin pointed out, the other colleges afford any analogy in the arrangement of their classes; Guy's had but one school, a Medical School, part and parcel of which were all its classes, and therefore members of which their attenders must be. The Scholarship question proved nothing more. If St. Thomas's choose to permit a man already a member of

Guy's to compete for their entrance prizes, that privilege does not constitute him a member of Guy's any the less, until he changes hospitals: men at the 'Varsities constantly migrate from one college to another. Nor did the letter of Mr. Ryder afford any better support to our opponents. It said, indeed, that as a member of the original committee who drew up the rules, Mr. Ryder knew that Preliminary Science men alone, were intended to be excluded from playing. But this does not alter the rule—it only shows the fatuity of Mr. Ryder, who intending to exclude a certain class of hospital students, nevertheless framed such a rule as would clearly, by itself, give the privilege of playing in the Cup matches to the widest possible number of students, so that the words, "any *member*" of a medical school, might fairly be held to include the dissecting-room porter. Moreover, as Mr. Taylor again pointed out, this letter was an opinion only, not a definition; and our opponents who had refused to recognize any external authorities could hardly with fairness quote the views of Mr. Ryder. With regard to precedent, of which much was made, it was doubted whether any precedent could be more disastrous than to pass a retrospectively-operative motion upon the arbitrary mis-interpretation of a perfectly clear regulation.

Dr. Martin contended that if the spirit of the rule was so contradictory to its obvious meaning, the rule should be re-constructed, but that it would reflect anything but credit upon the committee if they should disqualify a victorious hospital, for a paltry quibble over a disputed ambiguity.

Mr. Braddon proposed, as an amendment, that "the meaning of the word "*member*" in rule 9, should be held to be, "any person who has paid fees to any Medical School, entitling him to attend lectures on any subject at that School:" this amendment, involving the whole discussion, was of course lost. The rest of the discussion afforded no material arguments from our opponents; the proceedings were briefly these:—

An amendment by Mr. Scott, at Mr. Taylor's suggestion, that the question should be submitted for arbitration to Sporting Clubs, or University Club Committee's outside the Hospitals—lost by 8 to 7.

Later, the original motion was put to the vote, "that Guy's had infringed rule 9, and were therefore disqualified from holding the cup."

Mr. Taylor rose to order: and asked whether it was possible for the Committee to pass a motion involving a penalty not provided by the rules. There was no rule that said anything about the cup. The rule‡ said that the transgressing eleven should be "disqualified from playing during the season." He submitted that the season was over, and that this motion should have been brought forward before. It was out of order and most irregular. And the Chairman had no right to put to the vote a proposition which distinctly traversed the Rules of the Club.

Mr. Braddon also rose to order. He agreed with Mr. Taylor. The exaction of the penalty now was clearly irregular. There was, moreover, if the motion were made at a proper time, no rule whatever by which the Committee were empowered to take away a cup that had once been presented to the winning Hospital. The Committee were acting *ultra vires*. If the Chairman put this motion to the house, the only course would be for him to call upon the house to disagree with the ruling of the chair; and move the adjournment of the debate. Moreover the motion ought to be laid in writing before the house.

The Chairman, after a consultation with members of the Committee, concluded he was in order and put the motion to the meeting; "*That Guy's had infringed rule 9, and were therefore disqualified.*" For the motion 7, against 7.

The Chairman regretted exceedingly, but could not vote against his convictions. He therefore voted *for* the motion.

Mr. Braddon, hereupon, said that he must differ from the chair in its ruling, and that the Committee had transgressed their powers. He complained also that the motion carried was not that which had been under discussion all the evening. He must bring, as an original motion, before the house the resolution "that all the rules be rescinded and re-considered, and re-constructed in order that the Chairman might be in order." This was negatived; and the meeting dissolved. Mr. Scott having give notice that he should call for another meeting at a future date.

As the case now is the United Committee have passed the resolution that "Guy's" has infringed the rules and is disqualified. As Mr. Taylor pointed out this resolution is out of order. The last rule provides that the transgressing eleven are to be "disqualified from the competition during the season." Without insisting on the verbal quibble which the absence of a comma gives rise to, yet it is certain that the rule provides no regulation concerning the *Cup*, the contingency of a winning eleven being disqualified never having apparently been contemplated by the framers of the rules; nor is it stated during which season the disqualification is to be enforced. If it be the season during which the cup was won, then we have the pernicious fruit in this discussion of retrospective legislation. If we played for and won the cup under illegal conditions, what is then to be done with it? Are the matches to be played over again? Or is that year to be *annus non?* If so, the penalty has been exacted, and we can play again in the ensuing season; so that the penalty, except for winners of the cup, in the season in which they win it, has no real existence, as it cannot become enforced. If, on the other hand, the eleven are to be disqualified from playing during the season following that in which they infringed the rule, then, as winners of the cup, they remain, *quoad* the first season, *in statu quo*. In either case the cup remains with them. There is no rule authorizing its removal.

These considerations even, by no means settle the question; whatever be the issue of the discussion, the action of the last Committee meeting is illegal for this, if for no other reason. The Rules‖ of the Club provide that *two votes* only should be allowed for each Hospital. They do *not* provide that the Chairman shall give a *casting* vote. Now among the seven votes given in favour of the motion brought forward by St. Thomas's Hospital, there were two votes from University, and the (in itself illegal) casting vote of the Chairman, was of course a University College Hospital vote also. Mr. Corlyn lost an opportunity of making a graceful adjustment of differences at the same time that he stultified himself and the whole of the evening's proceedings of the Committee, in deciding a resolution which was unjust by a vote that was irregular. From this, the knowledge should have saved him, that even if he had a casting vote, the unwritten laws of good taste and sound custom, the Vote of the Chair is always given against innovation, and in favour of the things that be.

* Rule 9. "That *members of a Medical School* who are not of more than four years standing from the date of *entry at* the Hospital shall be eligible to play in the Cup Matches."

† Mr. A. T. D. Ryder was formerly Treasurer of the U. H. C. C.

‡ Rule 17. "That the Committee have the right of *disqualifying* any Hospital infringing these rules *from the competition* for the Challenge Cup *during the Season*."

‖ Rule 1. That each Hospital elect two representatives each year to act on a Committee empowered to manage the affairs of the Club.

Guy's Hospital Gazette,

JANUARY 22, 1887.

CHRISTMAS IN THE HOSPITAL.

Christmas week has been a lively one in the wards this year. Fortunately, there have been but few serious cases to mar the enjoyment of the festivities. Evergreens and Chinese lanterns have added brightness to the look of all the wards. Most noticeable for their decorations were, Miriam, Accident, and Luke.

On Christmas Day, after the patients and nurses had finished their dinner, a troupe of nigger minstrels, got up by the residents, paraded through the wards, giving a song or two and a breakdown in each. The performance was much appreciated by the patients. In the evening, Mary and Dorcas had Christmas trees, and all the children went to bed loaded with toys.

On the following Monday, there was a pretty tree in Miriam, and music in most of the wards, the greater number of which had been provided with pianos by the kindness of dressers and others.

On Tuesday and Wednesday the residents gave an entertainment to the nursing staff, in the Court Room. The programme was a long one, consisting of a farce, "Old Gooseberry," Offenbach's "The Blind Beggars," and a concert. Mr. J. C. Bates was the life and soul of the farce, the other characters being but mediocre. His performance, too, in "The Blind Beggars" was intensely amusing, and met with great applause. He was well backed up by Mr. W. A. Aikin. Of the rest of the programme, perhaps Mr. Alexander's recitation, "The Browns of Walham Green," was greeted most heartily.

Lydia, Christmas tree; Philip, concert; and the Eye Wards concert well filled Thursday evening. The concert in Philip was, as always, extremely good, and best, perhaps, in all the programme, were Mr. and Mrs. Scott Gatty, whose singing fairly "brought down the house." The Kyrle Society gave a good concert in the eye wards.

Friday again supplied the children with a plethora of toys, nor were useful presents wanting, from trees in Martha and Accident. In both, concerts followed the stripping of the trees.

On New Year's Day a Christmas tree and concert in Luke finished the week's gaiety. Through the kindness of Mr. Vesey, a friend of one of the House Surgeons, the tree was lighted by electric light, and it presented a very charming effect. The concert was one of the best we have heard in the wards, forming a fitting finale to the week.

Rarely has the old Hospital seen so pleasant a week, and thanks are due from patients, nursing staff, and students, to all who have so kindly helped in rendering Christmas in the Hospital a time of mirth and happiness.

ON STOOLS.

ABSTRACT OF A CLINICAL LECTURE
BY
DR. GOODHART.

The first clinical lecture of the second half of the winter session was delivered by Dr. Goodhart, on January 8th. The lecturer remarked that it had been his intention to deal with a case of cirrhosis of the liver, but that some remarks on the management of constipation in *The Lancet*, by Sir Andrew Clarke, had turned his attention to the merits of a case of so-called diarrhœa for a clinical lecture; and upon this, and upon stools in general, he would proceed to remark. First of all, however, he would say that while to most people a daily action of the bowels seemed a simple enough physiological process, nevertheless, according to no less an authority than that mentioned, it is really a matter of considerable attention to detail. In the remarks alluded to, six requisites confront us:—

1. Plenty of fluid and solid digestible food.
2. A moderately-full colon.
3. Attention to the promptings of nature.
4. Daily solicitation of nature at an appointed time.
5. The co-operation of expectation and will.
6. Contentment with a moderate discharge.

Who should call a thing simple that awaits the "co-operation of expectation and will"? Yet

each detail is simple—so much so, that almost a smile is evoked as one reads them in print. But, nevertheless, not one of them but what is found to be neglected from indolence or ignorance in the practice of everyone many times in the course of the year. Dr. Goodhart emphasised the fact of the natural existence of a moderately-full colon as a bedside point. There is a general impression that when the colon can be felt to be full, a purgative is necessary, but this by no means follows. The existence of *Sagbolar* is an abnormal and probably aperient-requiring condition, but a full colon is a natural condition It was further insisted that it is too much the practice to look upon the colon as a mere cloaca; whereas, on the contrary, it is certain, from facts too numerous to mention, that a fair proportion of the nourishment of the body is derived from the absorbent surface of its mucous membrane. The absence of colic absorption, either by destruction of the mucous membrane, or by the beplastering of it with mucus, under conditions of chronic catarrh, might, he thought, explain what otherwise was not easy to explain as a matter of mere drain, the very emaciated state of many a case of chronic dysentery, and of cases of mucous diarrhœa are possibly also the ill nourished state of such children as suffer from what Dr. Eustace Smith has called mucous disease, from the passage of large quantities of mucus from the colon.

The present case raises this very question:—

S. M., æt. 36, single, was admitted into 24 Mary, on November 17th, 1886, for diarrhœa. Her family history is good, with the exception of one sister who is said to have died of "consumption of the bowels." She has always been considered delicate, but has never had any illness beyond those common to children, until five years ago, when she began to suffer from constipation, which continued for twelve months; this was followed by diarrhœa, in which the motions were offensive and contained slime for the first six weeks, and blood in addition for ten weeks afterwards accompanied with tenesmus, occasional vomiting of undigested food, and pain, which was greater on the left side than on the right. After this the bowels were opened four or five times daily, but the motions contained no blood or slime. Patient has gradually been getting weaker, and during the last six weeks the bowels have acted nine to ten times daily with tenesmus. On and off for the last four months the urine has been the colour of porter. Jaundice was noticed for a few days during the last month.

On admission, lungs and heart are healthy; abdomen is irregularly resistant and tender on deep pressure; liver dulness normal, cannot be felt. Menstruation has been irregular lately and urine was of sp. gr. 10·17, amber colour, without albumen or sugar.

November 19th.—The motion passed consisted of a large irregular-shaped mass, slate coloured, containing undigested food; liquid portion was of greenish brown colour. A lump is to be felt in right iliac forsa, and adjacent umbilical region.

On November 22nd.—The motions are described as greyish brown. On the 25th as light yellow. On the 30th as cream coloured, and of the consistence of putty. Up to December 21st, motions remained cream-coloured, and then turned to greenish clay colour. On December 29th, motions are greyish brown. On January 6th, 1887, motions became black, probably due to the diet which patient has been taking.

January 7th.—Motions are of a healthy brown colour, and fairly solid in consistence.

During this time patient has had more or less pain during defæcation, and at other times in the abdomen; her food has been chiefly milk and farinaceous, and she has been treated medicinally with mist ammoniæ, opium, bark, euonymin, ol. morrh., ferum redactum, and nux vomica.

Several opinions may be held upon this case. The first thought that comes up is—May it be tubercular ulceration of the bowel? She is very thin, and has what is called diarrhœa. But when we come to examine the stools that are passed that suggestion is thrown over. The evacuations in the case have remarkably constant features. They are always creamy or grey (that is without bile), soft and copious. For diagnostic purposes stress was laid upon the large quantity passed, notwithstanding that the diet was spare. It seems to indicate that the food is not absorbed to the proper extent. But although thin and anæmic, the patient steadily gains in weight. It is therefore thought that some calantol colotis may exist, which by the reaction keeps the evacuation unduly soft, and at the same time prevent the absorbent function of the membrane from coming into play to any adequate extent.

As regards the colourless or bileless state of the stools he would say what might be necessary in a more general way.

Dr. Goodhart then proceeded to describe various stools, as in the following tabulated form:—

(1) Colourless (Diarrhœa Alba).	Rice Water. Mucous.
(2) White (Diarrhœa Gypsata).	Cream, or Paste like Curds. Curds and Whey. Fatty.
(3) Red.	Fresh Blood. Meat Juice like. Logwood Medicine.
(4) Green.	Altered Blood. Bile?
(5) Black.	Blood. Metallic Sulphides. Bile. ? Black Intestinal Fur.
(6) Yellow.	Typhoid. Ephemeral or Medicinal Diarrhœa.

I am afraid to go much into detail, but the following points were made :—With the passage of mucous think of Piles, New Growths in the Rectum or Siegmoid, Colitis, Mucous disease, as common things. Chronic intestinal catarrh with the passage of mucous casts is a rare affection, one, however, to which the case in point may be closely allied. And to show how long this condition may exist without any dangerous deterioration of health, a case was alluded to that Dr. Goodhart had seen in 1872, who was still alive and in much the same state now as then, and she has been passing these mucous casts on and off ever since. She, as the present case, is thin, anæmic, and on the whole, so far as one can judge, living a constantly low water life, always plaintive, always without energy.

White or lime-like motions are mostly due to one of two causes—faulty digestion, or absence of bile. The former condition is more particularly seen in infants who often pass curds in all sorts of disturbances during their milk life; or in adults, who, under febrile conditions, are being fed with unusual quantities of milk. The passage of curds gives an obvious suggestion to lessen the quantity of milk, to dilute, digest, or change it for some other food. The absence of bile is, however, of more interest. This is a common feature of the stools of a particular class of patients, adult and children. They come, or are brought, to the doctor, because, going into the abnormal state of the stools the subjects are thought to show symptoms of liver disorder. In adults there is often a good deal of hypochondriasis which renders cause and consequence liable to be confused (healthy adults neither look at their tongues nor their stools), but in children this element of error is wanting, and they are usually children without much amiss, but who get "black round the eyes," have foul breath, erratic appetite, fickle energy, bad dreams, and so forth.

Possibly the liver may be out of order and the chalk stool be demonstration thereof. But what is more important to know is, that give them what hepatic stimulant or treatment we like, and the liver pays very little heed to it,—white motions are passed all the same, and on the whole general tonic and plenty of exercise are the best remedies. Our patient in Mary has been in the ward eight weeks, and during all that time has passed certainly very little bile pigment, yet she is gaining flesh and is much better. Children pass pale evacuations for weeks and months together. Dr. Goodhart was therefore led to the conclusion that in a by no means small number of cases there is a want of the function of an average quantity of bile pigment which may almost be said to be a normal want for such cases; it exists for them so long without any conspicuous ill health results.

Green evacuations occur almost entirely in children, chiefly in infants; at one time they were considered to be due to bile, but of late years opinion has swung round, and they are of common consent now said to be due to the presence of altered blood. Dr. Goodhart believes that this dictum is far too exclusive. Green evacuations, "chopped spinach" motions, as they have been called, are common enough in diarrhœa in babies, quite apart from any disease of such severity as to deserve the name of cholera. Adults vomit green bile in their bilious attack as everyone knows, and infants, in the rapid passage of an ordinary diarrhœa, possibly sometimes with some abnormal conditions of bile no doubt, pass motions of green bile at times.

Black motions for the most part include no debateable points—their causes are well recognised; but Fraser alludes to a case which seemed to him to prove that the intestinal mucous membrane sometimes secretes a black mucus, just as the tongue may secrete a black fur. This is hardly a correct way of expressing

oneself. The fur on the tongue is due to the growth of micrococci, and the colour to some peculiar pigmentation of the growth; so that there is no great improbability attached to the suggestion that the same kind of thing may take place in the intestine. Whether this is so or not, this additional fact as regards black stools may be made—that it is by no means uncommon in the post-mortem room to meet with black intestinal contents and blackened mucous membrane the origin of which is obscure.

THREE CASES OF ULCERATIVE ENDOCARDITIS.

WITH REMARKS BY
F. R. B. BISSHOPP and A. H. TUBBY,
House Physicians.

We have ventured to place these cases on record, occurring in the wards during the months of October and November, as they present several points of unusual clinical and pathological interest in this rare disease.

CASE I.—UNDER THE CARE OF DR. CARRINGTON.

Daniel R., æt. 30, admitted into Stephen on October 4th, 1886, with pain in right chest, cough, and temp. 103·8; also suffering from diarrhœa and headache.

The patient had served in the army in India and had had dysentery, but in other respects his health had been good. He had not contracted syphilis, nor suffered from rheumatic fever. The following account was given of his present illness. A week ago, September 27th, he felt ill and feverish, and on the 29th shivered violently. Diarrhœa and vomiting also set in, and a cough with blood-tinged expectoration. An eruption, subsequently found to be herpetic, appeared on the lips.

On admission.—Dull and pained expression and cheeks flushed. Hot, dry skin. No œdema nor jaundice. T., 103·8. Breathing shallow. Well-marked dulness over right lung behind to the posterior axillary line, bounded above and below by the 3rd and 6th ribs, Tubular breathing, bronchophony, and a few sharp râles audible over this area; tactile vocal fremitus, too, being exaggerated. At the base of the left lung some râles were heard occasionally, but no other abnormal physical sign. Expectoration rusty and muco-purulent. R., 36. Tongue dry and furred, feeble appetite, and bowels loose.

The heart was healthy in every respect, as far as could be ascertained by the usual methods of investigation. P., 92. Ratio of P. to R. = 2·7:1. Abdominal walls retracted and some pains on pressing over right hyprochondrium. Liver and splenic dulness normal. Urine ·071 grs. of albumen per ounce, and chlorides much diminished. Quiniæ sulph. gr. v., tertiis horis, milk, beef tea.

Oct. 8. Dulness over right lung has crept into the axilla. At the left base physical signs of pneumonia are well developed. Brandy, ʒviij. daily.

Oct. 9. Patient perspired profusely and passed a better night. T., 99.

Oct. 10. T. 101, and skin hot and dry. For the following ten days the temperature has fluctuated irregularly between 97 and 101, and the pneumonia in both lungs showed no signs of clearing up, but rather extended. Ordered a mixture—Am. carb. gr. iv., vin. ipec. m. v., syr. scillæ ʒss., aqua ad ʒi, 4 trs. horis.

Oct. 20. T., 102.

Oct. 21. T., 102·8, but no increase in rate of breathing.

Oct. 23. Almost entire loss of resonance at left base, and the physical signs pointed to the probability of effusion into the left pleura. An exploratory puncture was made, and blood-stained serum drawn off, but the aspirator yielded negative results.

Oct. 24. Complains of shooting pains in head. T., 103·4.

Oct. 25. Has passed a restless night, and in the afternoon temp. had risen to 104°2. He now lies in an unconscious condition, unable to speak and swallows with difficulty. The optic discs were normal. A to and fro sound was heard at the base of the heart, but it was difficult to determine whether it was pericardial or aortic and a faint systolic bruit was detected at the apex. Ordered enemata: Beef Tea, ʒ i. j., Egg, T, Brandy, ʒ j. secundis horis.

Oct. 29. Condition materially worse, and some blurring of the right disc and retinal veins was observed. Cheyne Stoke's respiration, and abdomen very much retracted, faeces and urine passed involuntarily, pain on pressure over the spleen. No paralysis of face or limbs.

Nov. 1. Mouth drawn slightly to right side, but no twitching of face or limbs. Pupil equal and react to light. The to and fro sound at the base of the heart has quite disappeared, but the apex systolic murmur is louder.

Nov. 4. Right angle of mouth drawn upwards and some ptosis on left side, Both conjunctivae injected. Some spasmodic contraction on right side of face and hyperaesthesia over cervical and spine. He cannot speak but appears to understand what is said, deglutition improved. Can move his limbs, but there is great weakness on left side. Knee jerks not obtainable. Over the pneumonic area a few râles are audible and the cough persists.

Nov. 5. Patient died comatose.

Post Mortem. No petechiae.—Lower lobe of left lung and upper and middle lobes consolidated by pneumonia. Heart.—Left ventricle slightly dilated, mitral valves healthy. Aortic valves.—Right posterior valve covered by a mass of rough fibrinous vegetation, globular in shape, and measuring ¾ inch in its largest diameter. Left posterior valve.—Edge studded with fibrinous deposits. Anterior valve.—Edge thickened. Tricuspid and pulmonary valves healthy. No infarcts or abscesses in liver or spleen, nor kidneys, brain and meninges. Purulent

arachnitis over whole of right lobe and partially over left. No emboli in arteries. No abscess.

Spinal Cord.—Purulent arachnitis along the entire length.

Joints.—No effusion—no pus.

CASE II.—UNDER THE CARE OF DR. PYE-SMITH.

Thomas B., æt. 49, admitted October 8th, 1886, with pain in chest.

Patient has always been a healthy man. Was a sailor till within the last year or two.

Never had rheumatic fever. No history of syphilis. Has drank a good deal in his time, chiefly beer.

Present illness came on three days before admission. On this day, the 3rd, was pushing a cart when he slipped and fell on left side. Complained of some pain in that side, especially on breathing. This became very much worse, and he consequently came up to the hospital in the afternoon and was admitted. Since hurting himself he has had a cough, and has been spitting up blood-stained sputa, and feels hot and feverish.

On Admission.—Patient is a strong muscular looking fellow. Respirations hurried and short, 38; lips dry and parched, tongue furred, pulse 100, full, decrotic. T. 101.

On Examination.—Left lung in front for first two spaces resonance high pitched in axilla dulness, complete from top to bottom. Behind, dulness from middle of scapula to base of lung. Breath sounds deficient all over left side. Patch of tubular breathing heard behind in region of 7th and 8th ribs; below this breath souuds distant; œgophony at angle of scapula; diminished vocal fremitus and resonance below this point.

Right lung resonance good all over; breath sounds normal. Cardiac dulness normal; apex beat 1 inch internal to nipple; soft systolic bruit heard at apex, traceable into axilla. Urine acid clear, sp. gr. 10.15. Slight amount of albumen.

Oct. 7. Patient seen by Dr. Pye-Smith. Ordered mixture mist ammon. Mist senegæ, a.a. ʒ s.s. every 4 hours. Emplast. lyttae 6 × 6, delirious in night, still complains of a good deal of pain. Milk, beef tea, brandy ʒ iv.

Oct. 9. Worse. Is spitting up typical rusty sputa. Has well marked tubular breathing all over left base, and numerous fine crepitations; more noisy in evening, was transferred to strong room. T., 103; P., 130; R., 35.

Oct. 10. Quieter; physical signs the same. Brandy, ʒ vij.

Oct. 13. The last few days patient has made marked improvement. T. has not been above 100 since the 10th. Physical signs still remain the same. Urine acid, no albumen.

Oct. 15. Quite rational. T., 100; P., 88; R. 30. Physical signs still show evidence of fluid in left chest. Systolic bruit at apex louder.

Oct. 21. Transferred back to ward. T., 101. Sits up in bed and feels very comfortable. Resonance diminished still on left side from angle of scapula downwards. Numerous râles heard over same area. No tubular breathing. Systolic apex bruit heard in axilla, also at base; second sound not clear; no diastolic bruit. Put on full diet. Brandy ʒiv.

Oct. 24. Soft diastolic bruit heard over sternum; systolic apex bruit the same; dulness at left base clearing up. T., 103.4.

Oct. 25. Patient had a rigor lasting quarter of an hour. Brandy ʒ s.s. stat. T., 104.8. Quinine sulph. gr. × stat.

Oct. 26. Another rigor. T., 105.2. Diastolic bruit plainly heard.

Oct. 30. Since last report patient has been in about the same condition, having sometimes two rigors a day. Spleen not to be felt. Pulse rapid, full and bounding. Apex systolic bruit loud and harsh, aortic less so. Thallin gr iii. ordered if T. is above 103. Port ʒ vj., brandy omitted.

Nov. 3. Patient's condition about the same. Bruits, both apex systolic and aortic, vary in their character daily, T. ranging between 105 and 96. Rigors constant. Takes his food fairly well. No enlargement of spleen. Retinæ normal.

Nov. 5. Worse; appetite bad; lies on his back in a drowsy condition; aortic to and fro very loud and harsh; systolic bruit faint; condition of lung about the same. The last day or two patient has wasted considerably.

Nov. 8. Condition about the same. Aortic regurgitant, bruit very faint. No evidence of pericarditis. T. still oscillating between 105 and 99.

Nov. 11. Patient much weaker, occasionally delirious. No enlargement of liver or spleen. Complains of great tenderness in abdomen. Bruits still vary in their character from day to day. The falls in the temp. the last day or so have not been so marked, never getting below 100. Air does not enter left chest at base well. Râles heard on both sides. Has passed motions into the bed; slight diarrhœa; no incontinence of urine. Diet: Wine, ʒ × milk, beef tea, mixt. vin. gallice ʒ j, every three hours. Eyes examined, commencing double optic neuritis.

Nov. 13. More drowsy. Diarrhœa still continues. Pupils contracted and equal. Well marked neuritis both eyes; aiso numerous hœmorrhages. Complains of pain in left shoulder; spleen felt; bruits the same.

Nov. 15. Getting rapidly worse. R., 48; P., 120. Left hemiplegia. Numerous small petechiae over chest and abdomen; small bedsore over sacrum; abdomen markedly retracted; no tâche; bruits very faint; loud rales heard all over chest; tongue dry and parched; sordes on teeth; slight trace of albumen in urine; is still conscious.

Nov. 16. Gradually got worse, and died quietly at 3 p.m.

Post-mortem.—25 hours after death. Rigor mortis well marked. Lungs.—6 oz. of pus in left pleural cavity; pleura considerably thickened and lung fixed by adhesions; pneumonic condition of base of left lung. Heart weighed 14½ oz.; left ventricle dilated and hypertrophied; here and there small patches of myocarditis in muscular wall. Tricuspid and pulmonary valves

normal. Each cusp of the aortic valves was seen to be covered with fungoid granulations typical of ulcerative endocarditis. On the mitral, a similar condition was seen; and on the auricular surface of one of the flaps of these valves was a brownish-looking mass the size of half a mulberry. The aortic valves, in addition to these recent changes, presented evidence of old mischief, being considerably thickened. Not so the mitral. There was no signs of pericarditis. Liver, 82 oz, presented a nutmeg appearance. Spleen.—30oz., was very soft and typically pyæmic. At its upper part was an abseess two inches square, containing grumous pus. Intestines normal. Kidneys.—20oz., normal. Brain.—On the upper surface of the right hemisphere of the cerebrum, there was pus beneath arachnoid, and considerable encephalitis. No meningitis at base. No abscess or anything else morbid was found in the brain. No emboli. Sinures of dura mater normal. Joints—Only the shoulder left was opened, which was found normal.

(To be continued.)

A CASE OF SUDDEN BLINDNESS (? HYSTERIA),

Under Dr. BRAILEY. Ruth 32.

J. P., an anæmic looking girl, came up to out-patients on Dec. 10 with the following history:—

On Dec. 8, while in the kitchen, without any warning she became suddenly blind in both eyes, so that she was not able to see the lamp from the surrounding darkness; that evening she remained in the same condition. Next morning she was able to make out the position of the window with the Right eye, the Left remaining as before.

The next day she came up to out-patients.

Before the onset of the blindness sight had been perfect, and patient had, up till two years ago, been stout and of good colour, but since then she has lost flesh and colour and become subject to frequent fainting fits; attacks of sickness have also been frequent during the last two months.

On examination the pupils were seen to be equal and active to light, the cornea clear and movements perfect,

$$V = \begin{matrix} \text{R e.} & \text{p. l. only.} \\ \text{L e.} & \text{no p. l.} \end{matrix}$$

Ophthalmoscopic appearances normal.

Admitted on the 11th. R pupil noticed to be rather larger than the L.

Blisters were applied to the temples that night, and a mixture of quinine and iron ordered.

Patient's hands seem to be unusually transparent, so that when held up to the light one sees not only red transmitted light at the edges of the fingers, but even through the fingers themselves.

There is no enlargement of liver or spleen, and the heart sounds are normal.

On the morning of the 12th, tested by Snellen's types,

$$V = \begin{matrix} \text{R e.} & \frac{6}{12} \\ \text{L e.} & \text{p. l. only.} \end{matrix}$$

13th.

$$V = \begin{matrix} \text{R e.} & \frac{6}{9} \\ \text{L e.} & \text{p. l.} \end{matrix}$$

14th.

$$V = \begin{matrix} \text{R e.} & \frac{6}{9} \\ \text{L e.} & \text{counts fingers at 4 feet} \end{matrix}$$

The vision continued to improve steadily, till in another week she could see $\frac{6}{6}$ perfectly both eyes.

Patient's general health has very much improved; she is now stouter and of much better colour than when admitted.

She has lately been taking, as well as the quinine and iron first prescribed, pulv. ferri, carb. sacch., gr. x. t d s.

No indications could be obtained warranting the supposition of simulation, though, undoubtedly, the patient got about much better than could have been expected of one suddenly struck blind.

Jan. 6th, 1887. C. A. LUMLEY.

POST MORTEM NOTES.

CALCULOUS NEPHRITIS WITH SUPPURATION, STRICTURE, FASCICULATED BLADDER, SACCULATION OF DUODENUM.

Male, 55, admitted with severe cystitis, old history of stricture and lung trouble, soft vesical calculus detected and crushed. Cystitis practically cured by frequent irrigation of bladder, but pyuria persisted and patient died from exhaustion.

ANTOPSY.—Calculous nephritis with suppuration, and almost complete destruction of R. kidney. Extensive scarring of L. kidney from old nephritis (consecutive). Calculus inpacted in R. ureter.

Perinephritic suppuration on R. side, extending up beneath diaphragm into posterior mediastinum, setting up suppurative pleurisy on R. side; and burrowing downwards along psoas into R. iliac fossa.

Bladder much dilated, and fasciculated with a sacculus of mucous membrane at the upper and posterior part, and a small piece of calculus held between the fasciculi of the fundus.

There was a curious condition of sacculation of the duodenum, for which no cause could be found. It consisted of three pouches, one projecting backwards from the 2nd portion, another beneath the head of pancreas, and the third downwards in relation to the R. kidney. They were composed of hernia of the mucous membrane through the muscular coat.

In addition to pleurisy at R. base, there were old caseous nodules in apex of R. lower lobe.

MULTIPLE FRACTURES OF PELVIS. EXTRAPERITONEAL RUPTURE OF BLADDER.

Male 68. Knocked down, wheel passing over L. leg and abdomen. Admitted with fracture of left leg and pelvis. A little urine drawn off soon after was quite clear, eight hours later it was porter coloured. Hæmaturia persisted till death. On third day got suddenly worse, abdominal distension, became very collapsed and died.

AUTOPSY.—No peritonitis. On stripping off the peritoneum, a good deal of hœmorrhage was found in the hypogastric region, but no collection of urine or pus. No signs of suppuration. Water injected into uretha oozed out into the tissues on L. side of bladder. Pelvic viscera removed *en masse*.

Uretha and prostate normal, two wounds of mucous membrane of bladder on L. side in front, through which a probe passed obliquely into tissues around the bladder. No injury to peritoneal coat. Separation of symphysis pubis with fracture of both rami of L. pubes, so that this bone was free, and displaced downwards and backwards for fully an inch.

Separation of L. sacro-iliac synchondrosis. Much hæmorrhage in the neighbourhood of all these fractures. Double fracture of L. leg.

We are glad to hear that the public are responding liberally to the call made upon them for £100,000. We understand that the amount received already exceeds £33,000.

Passim.

MORE PROGRESS: THE TENNIS CLUB.—A step of progress in the right direction is the establishment of the Tennis Club. Nothing, to our mind, contributes to strengthen the corporate spirit of a School, like residence in close proximity to the Alma Mater: nothing, certainly, contributes to making residence in the Boro' tolerable, like the establishment of means of physical recreation within our boundaries. In the palmy days of the Borough United Hospitals very few men lived, or desired to live, far away from the Hospital. But there, in those days—when MR. COCK was teaching Anatomy in the Dissecting Room, when the OTIC GANGLION was a recent discovery, when 'HARRIS on the Arteries,' the 'Dublin Dissector,' and the famous 'Anatomy of the Head, Neck and Chest,' comprised the lucky Student's Anatomy in about 600 pp.—when 'MAYO' was a Physiology, and the whole curriculum was finished in two years—it was not worth a man's while to reside out of the Borough, which was the *Quartier Latin*. Now however, four, at the least, and oftener six or seven, years, are the days of the life of the Student—although some men be so chronic that they reach a decade, yet is their age but sorrow and misery—and to live all that period in an unsophisticated Boro' is moral and physical suicide. Unsophisticated means: Unleavened by the Nineteenth Century Spirit of rational recreation for the body of those who labour with the mind. The London, more especially the Borough, Medical Schools, have long been unique in this: that they are among the largest scholastic communities in England—probably *are* the largest—which bind together a number of young men in the common labour of arduous acquisition of knowledge, without providing, save in such trifling manner as but accentuates the anomaly, any forms of relaxation, or means of recreation, whatever, for their alumni. When we further reflect that these Institutions are the foci of Medical, which means Hygienic, and that is Social Progress, the contrast, between the liberal teachings regarding healthy pastimes which are disseminated from them, and the illiberal and unhealthy absence of the fruits of

those teachings at them, is more than ridiculous. The result of the absence of organized clubs and recreations at the Hospitals—we speak mostly for GUY'S—means this. All the men who can afford it live in the remote suburbs, out of touch of hospital clansmanship, out of reach of that atmosphere which so closely wraps an Alma Mater, wherein alone enthusiasm flourishes; of the remainder, living in the Borough, half become "Smugs" which is slang for sedentary, laborious, pale-faced, and hæmorrhoidal ascetics; the other half—resort to dissipation.

What would we have? We have said the Tennis Club is a step in the right direction. All those who live, as the Student should do, near the "Spit," will recognize its value, and support it. And more should follow. We have already mentioned the prospective Dining and In-door Recreation Club—it is not a far cry to the building of proper FIVES COURTS, a GYMNASIUM, and a SWIMMING BATH. We have very little faith in the physical improvement gained or the refreshment enjoyed, by the untrained and night-worked Stndent, who rushes forth once a week, to—what DR. JOHNSON might term a violent hebdomadal convulsion—his game of Football. We want, and can reasonably demand, ordinary means of providing healthy Physical Recreation for the leisure hours of the BOROUGH STUDENT within the walls of his Alma Mater.

THE PHYSICAL SOCIETY.—While the Tennis Club promises to be a success, the failing finances of the PHYSICAL SOCIETY threaten to bring that time-honoured institution to untimely dissolution. An urgent Circular has been sent round to the PRESIDENTS by DR. WHITE, asking them "to make a strenuous effort this month to get in some more subscriptions to save the Society from bankruptcy." No man fails to obtain his subscription's worth from the PHYSICAL. Will any Guy's man then read this appeal in vain?

JOURNALISTIC DEBILITY.—We do not intend as a rule to review current publications, but we cannot help pausing to notice the intensely interesting letter of DR. JOHN KENT SPENDER, M.D., Lond., in the *British Medical Journal* of the 1st inst. A boy got a cut under the eye, which was "as neat and clean as if done with a knife, transverse in direction, and parallel with the circumferential fibres of the orbicularis muscle. The bleeding had nearly stopped. . . There was little or no contusion." Now DR. JOHN KENT SPENDER, M.D., Lond., "had read a little while before a suggestion" by no less a luminary than Professor John Chiene, "on the treatment of wounds of the face," recommending a horse-hair stitch and a pad of wool. This seems to have struck DR. JOHN KENT SPENDER, M.D., Lond., as a novelty and even a sublime conception, leading him to compare its author to Pheidias. "Only one stitch was necessary, the wool protected the injured part from *organic* harm. . . The dressing came off within ten days." Wonderful! We know not which to admire most, the marvellous novelty of a horse-hair stitch, the surgical skill of Dr. John Kent Spender, or the child-like simplicity which led to the publication of this neophyte's trifle in the *British Medical Journal!* Would it be malicious to insinuate that probably that wound would have healed just as well *without* the illuminating aid of Professor Chiene, or even Dr. John Kent Spender? When will our medical journals cease to pad themselves with these puerile publications? We expect to see in another issue the following:—

"ON THE DIRECT TREATMENT OF COMEDONES, DIGITAL AND MECHANICAL."

BY WELL-MEANT BENDER, M.D., Lud.

It has been said by a writer, happily extinct, that "Honi soit qui mal y pense." Without, however, staying to explain a quotation which I do not comprehend, I may go on at once to say that I always think it very gratifying to find that any little facts which I acquired in the nursery are also known to even eminent authorities. So that when a great luminary publishes a decayed fragment of antiquated nurse-lore in a real medical journal, it always seems to me to be a suggestion of genius which is to be reverently worshipped, and I prefer Day & Martin to anything else. Consequently I was greatly struck by an ingenious paragraph by PROFESSOR STIGGINS in the *Family Herald* on this subject. Professor Stiggins says "the best instrument is a watch-key: the best way to apply it is to press it on with your finger." How neat! How simple are the directions of the great! The other day a patient calling upon me with several of these rare tumours present in her nose, I bethought me of PROF. STIGGIN'S luminous suggestion, and carrying out every detail scrupulously, by the aid of occasional references to the paragraph, which I kept beside me, I was pleased to find the plan as excellent as he stated.

I merely placed a large layer of cobbler's wax over the nose afterwards, and when at the end of a week or two this came off, with a little skin and cartilage, the orifices were scarcely perceptible with a large magnifying glass.

I am, &c.,

W. BENDER, M.D., Earlsw.

By a curious misprint, line 33 of the 2nd column of page 9 of our first number was rendered unintelligible. "Nulti granuries" should have been "milligrammes," and *bacilla* of course means *bacilli*.

Hospital News.

INTERESTING CASES IN MEDICAL WARDS.

14	Philip—	Cardiac Disease (Pulsating Liver).
30	"	Rheumatism, Endocarditis, and Pericarditis, and Purpura.
37	"	Peripheral Neuritis (?).
4	Stephen—	Locomotor Ataxy.
12	"	Leprosy.
29	"	Rash.
15	John—	Menière's Disease (?).
7	"	Aortic Aneurysm.
14	"	Peripheral Neuritis (?) or Hæmorrhage into Cord (?).
6	"	Obscure Pyrexia.
31	Miriam—	Alcoholic Paralysis.
25	"	Uræmia.

Green Extracts.

"THE BRAIN AND ITS FUNCTIONS."
By PROFESSOR FERRIER; 2nd Edition.

FIRST NOTICE.

This book belongs to a class which is very badly represented in the English literature of physiology and allied sciences; it is a book written upon a physiological subject by a specialist in the subject. There is not a man in England who has done so much work on brain physiology as Professor Ferrier, and we venture to assert, no other man could have produced such a magnificent resumé of the subject as lies here before us. His object in the book has been "to give a detailed account of his own investigations," and to give the reader a systematic exposition of the functions of the brain and central nervous system in accordance with best established facts of recent physiological and pathological research.

The first 50 pages of the book are occupied with a concise and lucid account of the anatomy of the central nervous system. Having mastered this chapter, we enter upon the consideration of its various functions.

Chapter II. treats of the functions of the spinal cord, first as a conductor, next as an independent centre. Ferrier shows that sensory impulses pass up to the brain in the deeper part of the lateral columns, and that there is no foundation for the usual belief that the posterior medium columns are the channels of conduction of the sensory impulses from the peripheral nerve-endings to the cerebrum. These columns run up to the clavate nuclei, and are probably connected with the cerebellum.

Clinical and experimental evidence is brought forward which conclusively disproves the statement of Brown-Séquard, to the effect that the fibres conducting "muscular sense" pass in by the anterior roots. In fact, he denies that there is any differentiation of paths for the different modes of sensation, and believes that all the "facts are more readily explicable on the hypothesis of differences in the peripheral organs, and in the receptivity to various forms of external agencies, of nerves endowed with common properties.

We are glad to see that Ferrier, in speaking of the 'heat centre,' makes a stand against the growing habit of localising the regulating mechanisms of any and every function of the body in some wretched little group of cells, generally situated in the Medulla. He says "that there is such a 'centre' or 'point' anywhere in the nervous system, which is in afferent and efferent relations with every focus of heat production in the body, seems to me an anatomical impossiblity." We think the scope of his remarks might be enlarged to include nearly, if not quite all, the so called 'centres' with which the Downing Street of the organism is endowed by physiologists.

The doctrine of centres served very well as a working hypothesis; but in its original form it is too narrow and therefore misleading. Ferrier shews that each segment of the spinal chord contains potentially the centres of all the processes going on in the corresponding somite.

The existance of a centre above the medulla inhibiting heat production, is shewn to be based on insufficient evidence, and, therefore, explanations of clinical facts, involving the assumption of this centre, would seem to be rather premature.

Chapter III. is occupied with a consideration of the functions of the Medulla oblongata. There is nothing very novel in this chapter, which would have been much more interesting if it had not been written before the publication of Gaskell's epoch-making paper on the Visceral nerves, which is merely mentioned in the foot note.

He quotes evidence to show that artificial diabetes from puncture is a secondary result of vasomotor paralysis of the liver, and hence "it seems absurd to speak of a 'sugar-forming centre' in the medulla."

The general convulsions which occur when the medulla is irritated by blood asphyxia, or lesions of the floor of the fourth ventricle, are all obviously dependent on abnormal irritation of centres and tracts which have definite physiological functions to perform. He concludes "To speak of such phenomena as indicating the existence of a 'convulsion centre' is, in my opinion, a most reprehensible abuse of physiological terms," in which sentiment we heartily concur.

Chapter IV. treats of the functions of the mesencephalon aad cerebellum, considering especially the condition of

the animal after ablation of the higher parts of the brain. Ferrier considers, in relation to these parts of the brain, the maintenanee of equlibration, the co-ordination of locomotion and locomotor ataxy, and emotional expression.

His remarks on locomotor ataxy are most instructive, and are well worth reading.

It is a rather interesting fact that the centres of emotional expression are situated in the mesencephalon, so that signs of emotion can be elicited in response to peripheral stimulation in animals deprived of their cerebral hemispheres, and therefore of all conscious activity and ideation.

Chapter V. contains a careful review of the conflicting evidence concerning the functions of the corpora quadrigemina.

Ferrier concludes, that the corpora quadrigemina, though not the centres of vision proper, are centres of co-ordination, between retinal impressions and motor re-actions or adjustments of considerable complexity.

This view will explain the disorders of co-ordination produced by lesions of these bodies.

The next chapter, on the Functions of the Cerebellum, is one of the best in the book. All experimenters are agreed that mechanical lesions of the cerebellum induce, in the first instance at least, such disorders of equilibration, that station or locomotion becomes difficult and sometimes altogether impossible. On the other hand, many cases of disease of the cerebellum in man are recorded, in which this organ was nearly entirely destroyed, with a remarkable absence of any considerable affection of the co-ordinating powers: moreover, the affection aroused by operation in animals passes off to a large extent in the course of time. This is due to the fact, that in the process of time the animal can supplement by a conscious effort the self-adaptive mechanism which is more or less entirely wanting, or gradually undergoing degeneration.

Prof. Ferrier shows, that the cerebellum, as an equilibrating organ, is intimately connected with the eyes, the semicircular canals, probably with the skin through the posterior median columns, and with the viscera through the direct cerebellum tract and Clark's Column.

Each lobe of the cerebellum corresponds to the eye on the same side and also to the skin and muscles on the same side of the body. Each lobe is also connected with the opposite cerebral hemisphere; and atrophy of one side of the brain is accompanied with wasting of the other side of the cerebellum.

The development of the cerebellum in various classes of animals varies directly with the activity and variety of their motor capacities. It is connected with the muscles of the body by fibres which pass down into the pens where they decussate and enter into intimate relations with the opposite pyramidal tracts through the cells of the *nuclei pontis*.

Nowhere in the book does Professor Ferrier's power of making the crooked straight and the rough places plain, appear to better advantage than in this chapter. It is a piece of masterly analysis.

The rest of the book, Chapters VII. to XIII. is occupied with the functions of the cerebral hemispheres and basal ganglia. He has already shown that the "destruction of the cerebral hemispheres, by annihilating sensation, ideation, volition, and intelligence in general, reduces the animal to the condition of a complex machine, the activity of which is the immediate or direct result of certain forms of 'ento,' or 'epi-peripherical' stimulation."

Chapter VII., after a short introductory, describes the methods of investigation. These are of two kinds:—

(1) Observing the effects which stimulation of definite areas of the cortex by means of galvanic or faradic currents has in producing definite movement and educing therefrom the functions of the several areas.

It is evident that these movements may be variously interpreted.

(*a*) They may be simply part of a reflex act, the cortex acting as a sensory surface.

(*b*) They may be "associated" movements, caused by a revivication in a sensory centre of a particular phase of consciousness.

(*c*) They may be due to the direct stimulation of ganglion cells presiding over a certain movement, and which, when acting automatically, would produce that movement.

All reliable experimenters are agreed that the cortex is very slightly, if at all, sensitive, in the sense that a cutaneous surface is, so the first interpretation may be discarded, leaving the other two to explain the results of expermiment.

(2) The second method of investigation is to excise or destroy portions of the cerebral cortex. If a definite paralysis or anaesthesia follows such an operation, it is inferred that the centre for volitional origination of the movement, or for conscious appreciation of the peripheral stimulation is situated in the part destroyed.

Chapter VIII. gives a detailed account of the results of electrical stimulation of definite areas of the cortex and basal ganglia in monkeys, dogs, cats, and various other animals—allowing for the different modes of life of the various animals, the results of experimenters agree very well.

The results of stimulation of the "motor ereas" are too well-known to need reiteration here. Those caused by stimulation of the supposed sensory areas are, however interesting.

On irritating the angular gyrus of one side, both eyes move to the opposite side, usually also the pupils become contracted, and there is occasionally a tendency to close the eyelids, as if under the stimulus of a strong light. Sometimes the head turns with the eyes to the opposite side. This points to the angular gyrus being concerned in the central appreciation of vision.

On the superior temporo-spoensidal convolution, stimulation causes a pricking of the opposite ear, while head and eyes turn to opposite side and pupils dilate widely,

these facts suggesting a localisation of auditory consciousness in this region.

On the anterior and inner aspect of uncinate gyrus, irritation cause tortion of the lip and semiclosure of the nostril on the same side, as when the interior of the the nostril is irritated by some pungent odour.

Prof. Ferrier finds that electrical stimulation applied to the surface of the lenticular nucleus of the corpus striatum causes a general muscular contraction of the opposite side of the body.

(To be continued).

Sport.

OCTOBER, 1886, witnessed the commencement of the forty-third season of the Guy's Hospital Football Club, and it is to be hoped that the end of it may still find us holders of the Challenge Cup.

I fear, however, that, unless a perceptible improvement is effected in the play all round, we shall have to retire in the first round of the Cup ties. There is no lack of good individual players, but there is a woeful lack of combination, at present, which is the one thing, *par excellence*, necessary for victory in the field.

Since October we have played nine matches, of which we have won four (Old Merchant Taylors, Epsom College, Saracens, and United Services), lost three (Middlesex Wanderers, Kent Rovers, and Queens), and drawn two (Christ's College, and Croydon), and, saddest of all, we have had to abandon two matches at the eleventh hour because, out of all the football players about the Hospital, it was found impossible to raise enough men to furnish two teams. This record is not as good as it might have been: the defeats are in large part due to our playing weak teams, the result of much "scratching." However, six matches have been arranged to take place before we play the London Hospital on the 28th January, and it is to be hoped that there will be no more "scratching." A team composed of good individual players is of no avail against a team of players of slightly inferior calibre, who know one another and play together. With a little practice together, I see no reason why we should not be able to maintain the field against all comers and still remain the Holders of the Cup.

The team for the Cup Tie *v.* London Hospital, has been in part already made up. the following having been selected:—

S. S. Wallis	*Back.*
H. M. Jordan H. H. Cuff	*Three-quarter back.*
A. Allport J. Fawcett A. D. Fripp C. D. H. Rygate T. O. Raw	*Forwards.*

There thus remain two half backs, one three-quarter, and four forwards to be chosen, and the choice will, of course, depend on the form of the various players in the matches between now and the 28th. The place of the third three-quarter will be most probably filled by either C. J. Prime or C. D. H. Rygate; of these the former has hardly maintained the form which he showed during last season, but on the other hand his great pace and smartness are great recommendations for the post, whilst Rygate is a host in himself, either as a forward or three-quarter. He was unable to play during the earlier part of the season, but made his re-appearance in the match *v.* Queens, as three-quarter, and played very well. The half-backs will be chosen from F. M. Russell, G. H. Steele, and H. J. Bryant. Of these Bryant has been playing middle three-quarter regularly, and in that position has so much improved in his passing that he is to be given a good trial in his old place as a half.

Russell is indefatigable at his own dashing game, and if only every member of the team had as much "go" in them as he has, we should not have much to fear from other hospitals; but his game is not the proper half-back game, and unless our halves will play their proper parts, and give our three-quarters a chance to play theirs, we cannot hope to survive the first round of the Cup Ties. We have had practical demonstrations of this in several matches this season, and more than once the three-quarters have actually stood still during the whole game without once getting a chance.

The additional forwards will most probably consist of W. C. Swayne, H. Joslin, A. E. Kelsey, and N. Instone. It is a pity that there are not more forwards to choose from. Several names have disappeared from the list from various causes since the beginning of the season.

The programme for the rest of the season is as follows:—

Date.	Match.	Ground.
Saturday, Jan. 22	Sydenham	Sydenham.
Friday, „ 28	*1st Round Cup Ties*, London Hospital.	
Saturday, „ 29	Croydon	Croydon.
Saturday, Feb. 5	Kensington	Wood Lane.
Thursday, „ 10	R.N.E. (?)	Greenwich.
Saturday, „ 12	London Scottish	Lee.
Saturday, „ 19	Old Merchant Taylors	Blackheath.
Saturday, „ 26	Dulwich College	Dulwich.
Saturday, Mar. 5	Blackheath	*Blackheath.
Saturday, „ 12	Royal Vet. Coll.	*Blackheath.

This programme has been inserted here because it differs in some particulars from that on the card.

The draws for the first round of the Cup Ties is as follows:—

King's *v.* Middlesex	Played, Jan. 24.
University *v.* St. George's	„ „ 25.
St. Mary's *v.* St. Bartholomew	„ „ 27.
Guy's *v.* London	„ „ 28.
Charing Cross *v.* Westminster	„ „ 31.

St. Thomas's a bye.

The 2nd Fifteen, under the captaincy of R. A. Sawyer, has been fairly successful during the present season. They have played eight matches, of which they have won six and lost two.

Owing to the long spell of frost with which we have been afflicted, it has been impossible to play the matches arranged for the early part of this month.

The team turned out on January 13th to play against the Cambridge Wanderers, but the thick fog which came on put a stop to such good intentions. Despite the weather, the afternoon was spent in practising dribbling and passing, finishing up with a short run of about one mile.

On January 15th, the team journeyed to Portsmouth to play H.M.S. Marlborough. There the ground, though hard, was not dangerously so, and a very good game resulted. Our opponents won the toss and kicked off: the ball was well returned and the first scrimmage was formed in the enemy's ground. Up till half time the game was very slow, the ball being in the scrimmage nearly the whole time, and for the most part in our twenty-five. We were obliged to touch down once in self-defence. The forwards did not play up with any dash, and the three-quarters had but scanty chances given them. After half time a marked improvement was noticeable; the forwards played a looser and faster game, and the half-backs passed much better, Bryant especially. During this latter part of the game the ball was almost confined to the enemy's ground, but no points were scored until about 3 minutes before "no-side." Wallis, who had changed places with Russell, passed very neatly to Jordan, who achieved a very clever run and obtained a try behind the posts. The kick, though an easy one, failed. We were thus victorious by 1 try to nothing. The collaring of our three-quarters and back was good; especially on the part of Jordan. Our team consisted of:—

S. S. Wallis	*Back.*
H. M. Jordan C. T. Prime F. M. Russell	*Three-quarter Back.*
J. H. Bryant G. H. Steele	*Half.*
A. D. Fripp J. Fawcett A. Allport T. O. Raw C. D. H. Rygate N. Instone H. Kelsey W. C. Swayne H. Joslin	*Forwards.*

GUY'S 2ND XV. *v.* ST. THOMAS'S 2ND XV.—This match was played at Lambeth on Wednesday, January 19, and resulted in a win for us by 2 goals, both dropped by Wallis, and a try, obtained by Allport, to one try.

GUY'S HOSPITAL LAWN TENNIS CLUB.

President—
W. ARBUTHNOT-LANE, ESQ., M.S., F.R.C.S.

Committee—
1st year—C. J. ROBERTS and F. COLCLOUGH.
2nd ,, —H. G. BIDDLE and W. K. STEELE.
3rd ,, —H. M. JORDAN and E. J. D. MITCHELL.
4th ,, —H. J. HOLMAN and F. M. RUSSELL.
Above—G. PENDER-SMITH and S. WACHER.
Special Member—W. W. WALFORD-POWELL.
Treasurer—C. H. D. RALPH.
Hon. Sec.—J. BAMPFYLDE.

The New Street Court, granted by the kindness of the TREASURER, is already in play, and it is proposed to proceed to lay down, in cement or asphalte, two courts on the site of the old burying-ground at the corner of Guy Street and Nelson Street, which has been most generously rented to the Club by the GOVERNORS for that purpose at a merely nominal rate. As the Club now numbers between 30 and 40 members it is obviously desirable to finish these Courts as soon as may be. But it is equally obvious that this requires money, and the Committee will not feel themselves justified in placing the site in the contractor's hands until at least 150 subscriptions have been paid or guaranteed. The funds of the Club now amount to about £30, and £10 promised. Of this £25 have been absorbed in laying down the New Street Court. The amount needed to build the two new ones is £70, of which £15 are thus in hand. The Committee earnestly hope that all Lawn Tennis players will support the Club by becoming members without delay.

The Subscription is Ten and Sixpence per annum, with an Entrance Fee of Five Shillings. Gentlemen wishing to join can do so by giving their names to any of the Committee of their year, or to the Secretary.

J. BAMPFYLDE, *Hon. Sec.*

In consequence of the vacancy caused in the hospital by the death of Dr. Moxon, Dr. Goodhart becomes full physician; Dr. Carrington senior assistant physician and senior pathologist; Dr. Pitt junior pathologist; and Dr. Shaw has been appointed medical registrar.

A meeting will be held on Tuesday at the College of Physicians, at 5 p.m., to consider the most fitting mode of perpetuating the memory of Dr. Moxon. Sir William Jenner in the Chair. All Guy's men will be heartily welcomed.

NOTICE TO CORRESPONDENTS.

The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

"Referred" has been received, with thanks.

Guy's Hospital Gazette,

FEBRUARY 5, 1887.

THREE CASES OF ULCERATIVE ENDOCARDITIS.

WITH REMARKS BY

F. R. B. BISSHOPP and A. H. TUBBY,
House Physicians.

CASE III.—UNDER THE CARE OF DR. HALE-WHITE.

Charles L., æt. 39, wheelwright, was admitted on November 8, 1886, for pyrexia.

Family history.—Good.

Patient has always enjoyed good health. Never had rheumatism or syphilis. No history of ague.

Present illness came on four months ago. Says that he felt dizzy, and was obliged to stop his work; noticed that he perspired very much at the time.

These attacks, which gradually assumed the form of shivering fits, followed by a feeling of intense heat, and sweating occurred with varying frequency, sometimes coming on two or three times a day—they did not show themselves at any definite periods of the day. Patient did not feel ill, but says that he does not feel so strong as he did. Has been attending out-patients' for the last month.

On admission.—Patient pale; very anæmic; lies on his back; complains of no pain; appetite bad; tongue furred; skin cold and moist; pupils dilated; ankles and feet slightly œdæmatous; pulse full, regular, 100; R., 24; T., sub-normal; bowels open.

Liver dulness normal; no tenderness on precussion; splenic dulness increased; no edge to be felt; abdomen full; nothing abnormal to be felt; some tenderness on pressure in left hypochondriac region.

Respiratory system.—Resonance good all over; vesicular murmur heard all over chest; no abnormal sounds.

Circulatory system.—Cardiac dulness normal; slight epigastric pulsation. Basic systolic bruit heard best and loudest over pulmonary valves; apex not displaced; basic bruit heard faintly at apex; no regurgitation.

Urine clear, slight deposit; sp. gr., 10·15; acid; albumen, 1/10; no blood.

Microscopically.—Few pus corpuscles; no crystals; no casts.

Nov. 9.—Patient this morning at 7 a.m., had a rigor lasting 1½ hours. This was succeeded by heat and sweating; T., 105·5. Said he did not feel ill. Pupils contracted. Quin. sulph., gr. X. stat. In the evening, at 6 p.m., patient's T. was normal.

Nov. 10.—At 10 p.m. last evening another rigor; T., 105·4. At 2 a.m., quite normal. Had a fairly comfortable night. No pain anywhere. Joints examined. Heart sounds still the same. Appetite good.

Nov. 11.—Had two more rigors to-day; is very drowsy; still tenderness in right hypochondriac region; nothing felt. Eyes examined; discs normal; large patch of retinitis, left eye.

Nov. 13.—Patient complains of feeling weaker. Rigor. T., 104·4. The basic systolic bruit very loud and rasping to-day; diastolic heard down sternum, very faint. Urine still contains albumen.

Nov. 15.—About the same; on an average, two rigors a day. Complains of no pain, but is more listless than he was. Optic neuritis, right eye. Bowels open, very loose. Pulmonary bruit changes its character daily; definite diastolic bruit now to be heard down sternum.

Nov. 18.—Patient has been getting worse the last three days. Rigors still continue, but temp. does not rise so high. Much more anæmia. Takes very little little notice of what goes on around him; very drowsy. Pulse, 78; R., 16. Some Rhonchi heard in lungs. Optic neuritis, right eye. Note by Dr. Hale-White:—"To-day I decided the case must be one of malignant endocarditis, the pulmonary valve being effected, and the basic systolic murmer being due to this, for it was definitely loudest over the pulmonary valve, and conducted upwards to the left."

Nov. 20.—Getting worse; passes his faeces and urine under him; more drowsy. To-and-fro bruit alters in character daily. Rigors constant. No pain or swelling of joints; no petechiae; no paralysis. Tenderness over spleen. Albumen still present. No pus.

Nov. 23.—For the last day or two quite unconscious. Condition the same. Died at 6 a.m. this morning.

Post-mortem examination.—Heart hypertrophied and dilated. A vegetation 1½ inches long by ½ broad and ⅓ thick, was attached to the left ant. pulmonary valve and projecting into the artery. The surface was almost calcareous. There was some ulceration of the other cusps, which were thickened wherever there was friction. Vegetation on pulmonary valves; aortic free; mitral free. Liver normal; no infarcts. Spleen enlarged and soft; no infarcts. Kidneys—Early interstitial nephritis; no infarcts. Brain normal. Joints normal. Retina, old Retinitis. Neuritis, right side. No hæmorrhage.

Remarks. On reading these cases it is evident that, from the commencement of the first to the termination of the last, not more than forty days elapsed, a point of some interest from Dr. Goodhart's observations in the thirtieth volume of the Pathological Society's Transactions. He there adduced facts to show that cases of this nature not uncommonly occur in groups, and, further, that other septic fevers, such as erysipelas and pyæmia, are often under treatment at the same time. We, too, found that, in the early part of 1886, there were 7 cases of pyæmia in the Surgical, and 4 cases of ulcerative endocarditis in the Medical Wards of this Hospital.

The ages of our cases ranged from 39 to 49, and are in accordance with such stastics as have hitherto been obtainable, that it most frequently occurs in the middle period of adult life. Very rarely are young children attacked, only 4 instances having been recorded under 10 years, and as few over 50.

An attempt at the classification of the causes has been made, and they may be grouped under three heads. 1. As a primary disease of the heart and its valves, as in case 3. 2. As a sequla or rather complication of acute rheumatism, pneumonia, scarlet fever, diphtheria, or ague. 3. Supervening in the course of such septic processes as pyæmia or puerperal fever.

In the latter affection it is now accepted that cardiac lesions are found in the right auricle and ventricle.

From a record of 209 cases, 45 were primarily cardiac, no disease having previously attacked the patient which could have been effectual in producing an acute septic process in the heart.

37 of the 209 followed pyæmia, traumatic, or puerperal and 54 in the course of pneumonia, or 25 per cent. of the whole, also in 2 of our 3 cases.

For clinical purposes observers have described 4 types, cerebral, cardiac, typhoid, and a form in which intermittent fever occurs closely resembling pyæmia or ague. It is impossible, however, to speak dogmatically, as cases may severally present features of two or more tpyes. In the first patient cerebral symptoms were very prominent, and the cardiac murmurs did not indicate the full extent of the morbid processes in the heart.

In case 2 the murmurs, though variable, were persistent from an early period of the illness, leaving no doubt as to its true nature, and throwing much light on what would otherwise have been a perplexing symptom, the intermittent character of the fever.

A pulmonary basie bruit was detected *on* admission in the third patient, and daily rises of temperature, sometimes to 105° were noted, in which a hot and a sweating stage were very perceptible, but the indications of disease of the cerebrum, or its membranes, were absent. Occa sionally cases are met with in which the heart appears to be normal.

Diagnostic difficulties often arise, and there are many conditions for which ulcerative endocarditis may be mistaken. It would be well to enumerate them, and foremost amongst them is typhoid fever. From a differential point of view the following facts are worthy of note. Ulcerative Endocarditis is much more abrupt in its onset than the latter disease, and progresses to a termination sooner; then the character of the temperature charts will often be of assistance. It may be, too, that the physical signs of cardiac disease are present *early* in the illness, indicating the possibility of the heart being the primary cause, although it is to be remembered that a mitral systolic bruit often occurs in typhoid, but late in the disease. A point of especial diagnostic value is the appearance of an *aortic* murmur during the course of a suspicious fever, a to and fro sound being audible in our first patient for a period of six days. Rigors and symptoms of embolic infarctions are common in septic endocarditis but rare in enteric fever.

Pyæmia again is closely analogous to, if not identical with, the condition under notice. Lesions of a septic nature may be the immediate precursors of ulcerative destruction of the valves or myocardium, and again, secondary inflammations of the viscera or joints often are the direct result of primary mycoctic inflammation of the heart.

In the third case there was marked tenderness on the right hypochondriac region, and it was discussed whether there was an abscess on the liver causing general pyæmia, or whether the heart was the prime factor.

Although rigors and rises of temperature simulating tertian or quotidean ague occur, yet it is a singular fact that in just these cases cardiac murmurs are present, and the constitutional disturbances so great between the rigors, as to irresistibly lead one to think that the condition of the patient is graver than could possibly exist in a mere attack of ague.

A few remarks only as to the histology and pathology of these cases may be permitted since time and space will not allow us to go into detail. It is usually conceded that micrococci play some part in the production of ulcerative endocarditis, but their proper rôle has not yet been determined. In cases 2 & 3 the Mycosis Endocardü was discovered by the sister in Philip Ward.

Post mortem, a broad distinction obtain between cases. In some, numerous emboli and abscesses are found in every organ, particularly the spleen and kidney. In case 2 a large abscess was discovered in the spleen, the organ most frequently the site of secondary deposits. Occassionally too the stomach presents signs of infarction, as in a case of severe endocarditis recorded by Dr. Carrington. In other cases the entire absence of emboli is remarkable. None were found in our first patient. Many parts of the heart are affected by the acute septic process, and we may quote some figures in reference to this point. Of 209 cases the aortic and mitral valves were affected in 41, the mitral alone in 77, the aortic alone in 53, the pulmonary in 15, and the cardiac wall or septum in 33. In case 1 the aortic valves alone were affected; in case 2 the aortic and mitral; and in the third case the pulmonary valves, a very rare and interesting fact, there having been no case yet reported in which the right side of the heart was affected apart from puerperal fever.

Meningeal complications occasionally arise, and still more rarely the spinal membranes are involved, this is particularly so in those cases in which the illness has commenced in pneumonia.

Both cases 1 and 2 presented this complication and in both the primary disease was pneumonia.

A CASE OF LOCOMOTER ATAXIA,

EYE SYMPTOMS BEING MOST PROMINENT.

G. M., 35.—A strong, healthy-looking man, complaining of dimness of sight, came to Dr. Brailey's Out-patients, on October 15, 1886.

Three years ago patient noticed that his sight was getting misty for going about, but had no difficulty in reading till 3 months ago, when

his sight began to fail in this respect, and has lately got worse for both near and distant vision.

For 12 months or so has had a rupture, the result of a strain 2½ years ago; is otherwise healthy; never suffered from any venereal affection; has been married 11 years; has 6 children, eldest 10 years, youngest 1½ years old; wife never had any miscarriages.

Patient walks well and can stand with eyes shut without inconvenience. There is total loss of knee jerks. He suffers severe pain in the under surface of thighs and calves after passing a motion.

After close inquiry he gives a history of shooting pains in the lower limbs, as though knives were being stuck into him; but this was not at all a prominent symptom, as it was only after thinking for some some that he was able to remember it.

There has been some loss of sexual appetite for a considerable time past.

For the last 18 months his wife has noticed a thickening in his voice.

The pupils are contracted and inactive to light, though acting to accommodation. The disc appears a little red and the vessels slightly tortuous,

$$V = \begin{matrix} \text{R e. } \frac{6}{9} \\ \text{L e. } \frac{6}{12} \end{matrix}$$

manifest hypermetropia = 1·5 ♏

Dr. White saw the patient on December 20, and was of opinion that it was "a case of Tabes Dorsalis, though it is impossible to say exactly the position of the sclerosis." He advised Iodide of Potassium in doses of from ʒss—ʒiss.

On January 4, $V = \frac{6}{12}$. It was noticed that his accommodation was paralysed, and glasses for reading were ordered +4·5 ♏ spherical.

Since November he has been treated with Pot. Iod. qr. xxx. t. d. s.

Remarks by Dr. Brailey.

The ataxy of the lower limbs is, in this case, conspicuous by its absence. Apart from the total want of the knee reflexes, the evidence of the disease rests on the eye symptoms alone. These are, however, well marked and characteristic. The pupillary symptoms (a want of contraction to light, that accompanying accommodation remaining unimpaired) are commonly seen, but the paralysis of the ciliary muscle is much rarer.

Cases like this are generally presumed to be in the *first* stage of locomotor ataxia, and it is supposed that the later stage, that of difficulty in walking, in standing with the eyes shut, &c., &c., will supervene later.

Do all cases pass into this second stage? It is interesting to note that ataxy of the lower limbs is very rarely seen in the out-patient room, whereas, patients presenting the characteristic eye symptoms, notably that of optic atrophy, are very common.

Locomotor ataxia would therefore, so far as the literal interpretation of the word goes, be a very unsuitable term for the disease as Opthalmic Surgeons commonly see it.

C. A. LUMLEY.

CLINICAL LECTURE.

At a Clinical Lecture on Saturday, Jan. 22nd, Dr. Taylor discussed the case of a woman who was admitted under him into Stephen ward, on Sept. 29th, 1886, for weakness of legs and "riotous conduct."

Abstract of Report.

Woman, aged 32, with an alcoholic history. Four weeks before admission noticed weakness and pain in legs which increased, followed by diminution of power and pain in arms, and later by mental aberration.

On admission, Sep. 29th, 1886, there was marked wasting of the limbs, with paralysis, affecting chiefly the extensors and adductors. Hands and outer three fingers in position of passive flexion. Legs separated at an angle of 60°. Patient unable to adduct them, forcible adduction being painful. The muscles gave "reaction of degeneration." Skin of legs anæsthetic. Superficial and deep reflexes abolished. Loss of memory with hallucinations. Patient raving and delirious at night. Urine and fæces passed involuntarily.

Since patient has been in the hospital she has wasted rapidly, with the exception of the face. The paralysis of limbs has increased; hands and feet drop, being well marked, complete extension of these joints being impossible. Forearms have also become strongly flexed. There has been marked hyperæsthesia of muscles. At one time marked pain on pressure over internal popliteal nerve. Pain now disappeared.

Dr. Taylor drew attention to the following points:—First of all the *alcoholic history*; next the *paralysis* of the limbs, affecting first of all the extensor muscles so that the hands and the feet drop; *wasting* of paralysed muscles — the limbs of the woman, who is 32 years of age,

being no larger that that of a child of 10 or 11 years of age; presence of *electrical reaction of degeneration* next, with regard to the sensory phenomena, we have—

(*a*) A certain amount of *anæsthesia*.
This is stated in the report to have been universal at one time over the body. Such extensive anæsthesia is, however, not common in similar cases.

(*b*) Muscular hyperæsthesia.
Since patient has been in hospital she has continually complained of deep-seated pain in the substance of the muscles. The apparent hyperæsthesia of skin which exists in some cases is probably due to this cause.

Another characteristic feature is the *condition of mind*—

(*a*) The loss of memory. Patient continually forgetting where she is, and the visits and persons of her friends and medical attendants.

(*b*) Hallucinations. Patient not only forgets what has occurred really, but constantly imagines events that have had no existence.

These cases present a great deal of interest, forming as they do a group which, till quite recently, has been mixed up with the diseases of the spinal cord, and with which, in reality, they have nothing to do, being essentially a disease of the peripheral nerves.

Very similar to the paralysis from alcohol is that due to the diphtheritic poison and that due to lead.

Soon after recovering from diphtheritis the patient finds a difficulty in swallowing the food, perhaps returning through the nose—the voice acquires a nasal twang—the legs are found to become weak—paralysis of the accommodator and the ocular muscles may take place.

Many attempts were made to shew that these paralyses were due to changes in the spinal cord—all such attempts being eminently unsatisfactory. A peripheral neuritis is probably the essential part of the process.

The same question arises with regard to lead poisoning. Paralysis from lead has for a long time evaded all attempts to elucidate its pathology. From most recent observations it also would appear to be due to a peripheral neuritis.

Dr. Wilks has, for a long time, called attention to the phenomena of alcoholic paralysis. In his lectures he seems to think it connected with the spinal cord or its meninges, but fails to give any evidence to substantiate this.

Dr. Taylor has examined the cords of cases without finding anything to account for the paralysis.

A general neuritis is now being recognised as giving rise to a paralysis occurring in certain pathological states—syphilis, for instance, and many fevers.

In a disease known as beri beri, a peripheral neuritis is said to explain the phenomena. Very little on the subject has been described by writers of medicine, facts being dealt with by physicians from a clinical point of view. As a consequence of neuritis motor sensory and trophic functions are disturbed or lost.

What is the condition of the nerves in neuritis? Occasionally the inflammation is of an acute type marked by redness and swelling of the nerves. But more frequently the inflammation is of a slower and more chronic kind, only to be detected, perhaps, by microscopic means. Two kinds of change are recognised. The one interstitial, the nerves being affected secondarily, by pressure on them, the other parenchymatous. In conditions such as the alcoholic neuritis before us, sometimes the one, sometimes the other condition prevails.

Dr. Taylor went on to speak a little more fully on the symptoms of alcoholic periphegia, and mentioned the case of a man who was under his care last year, and had a cirrhotic liver from the effects of drink.

He had, in addition, wasting of his legs, with paralysis and tenderness of the muscles and pains in his limbs. An interesting point in this case was a glossy shining skin, which has been frequently noticed in connection with affection of the nerves.

There is another form in which alcoholic neuritis may shew itself. This is in an ataxic shape, scarcely distinguishable in many cases from locomotor ataxy. These cases may often

be recognised by the absence of the Argyll Robertson pupil and the tenderness of the calf muscles.

The walk, too, is somewhat different, the dropped foot being marked with much less of the heel action.

The prognosis of these cases is very uncertain —over 50 per cent. (25 out of 46) are fatal.

In alcoholic paralysis the reflexes are commonly abolished quite early.

With regard to the bladder and rectum, they are sometimes affected quite early with the production of incontinence of urine and fæces.

Neither of these conditions existed in this case.

With regard to the extent of the paralysis, there are certain parts which are frequently affected in these cases—the diaphragm and the laryngeal muscles.

The affection of the laryngeal muscles is attributable to Vagus paralysis. Paralysis of the nerve, will also account for the quick pulse sometimes occurring in these cases.

The diaphragmatic paralysis is readily discernible by the falling in of the abdominal walls accompanying the sucking in of the diaphragm during respiration, the reverse occurring during expiration.

The case of a man was mentioned who, from excesses in drink, became delirious and paralysed in the arms and legs. He was unable to speak clearly, and also had paralysis of his diaphragm. He greatly improved under appropriate treatment, and recovered his voice which had been lost, getting back also the use of his diaphragm.

His mental condition, however, remained queer for a long time, loss of memory and hallucinations being marked.

Another case was mentioned of a tobacconist with paralysis of his diaphragm, loss of voice, dropped wrists, and the typical mental condition.

No doubt many cases recover on the condition that alcohol is completely abstained from. In a large uumber of others the nerves are so far advanced as to be irrecoverable, so that although improvements may take place on certain points recovery is impossible.

As regards the treatment the most important is the complete removal of alcohol, proper nursing, tonics, and preventing limbs getting into a contracted state.

NOTES ON A CLINICAL LECTURE

Delivered by Mr. Bryant, Jan. 26, 1887.

FRACTURED PATELLA.

This fracture differs from most others in being produced by muscular action, and not by a sudden bending or cracking as is the case with long bones.

The patella may be considered a sesamoid bone, situate in the middle of a long tendon (ligamentum patella), and useful as a protection to the knee-joint. When the quadriceps extensor is suddenly contracted, three things may happen—the patella may be fractured or the tendon give way either above or below the bone. Of these the bone by far the most commonly gives way, and this mainly on account of the mechanical arrangement, the patella being levered on the condyle of the femur, the joint being flexed at the time of the accident. As another example of this kind of accident, Pott's fracture may be mentioned, in which there is dislocation of the foot outwards associated with either fracture of internal malleolus or rupture of internal lateral ligament. This latter, of course, depends on which is the stronger, and in two cases out of three the malleolus is fractured. Fracture of the os calcis is another example of this kind of accident.

A child was admitted into the Hospital, having slipped whilst standing on some steps and fallen sideways on to a gravel path. The posterior part of the os calcis was found to be separated from the body of the bone and drawn upwards about one and a half inches.

Another case was admitted in which the fragment had been drawn up two inches, but having formed firm adhesions was not replaced.

The tubercle of the tibia may in a similar way become separated as in the case of a lad, æt 17, recorded by Dr. Will, of Aberdeen.

The interest of these accidents is increased when we consider so-called sprains. These accidents may be trivial, simply a stretching of the ligamentous tissues around a joint, but, on the other hand, according to the severity of the strain the ligaments may be partially or completely torn. Now is it not more likely, as we have seen in fractured patella, Pott's fracture, &c., that what is called rupture of a ligament is

really tearing away of the ligament with some of its bony attachments, and not a solution of continuity of ligament at all? For such accidents the term "sprained fractures" would seem to be especially applicable in which there may be no crepitus or free mobility, i.e., in severe sprains there is generally some fracture of bone. The interest of this is centred not so much in point of treatment, which should be the same as in cases of well-defined fractures, but in prognosis, for the latter is worse as regards movement when the ligament is torn away with its attachment than when the bone is broken across.

The treatment of fractured patella is of interest from the numerous suggestions which have been made to get bony union, but from the evidence of the fractures previously quoted it would seem that ligament is quite as strong and in some cases stronger than bone, and statistics also prove that short ligamentous union is quite as efficient as bony union in cases of fractured patella..

Of 32 cases of old fractured patella admitted for other injuries, 28 had a limb which was in all ways useful; four in which the leg was weak.

In one of these the separation was 1 inch; in two, ½ inch; in one, 2 inches.

Of these one could carry half cwt. up a ladder. Another was a lighterman and another was a carman. In one case with 3 inch separation the limb was perfectly useful; in another with 4 inch separation the limb was good.

Thus it is that separation of fragments is not of so much importance as to the use of the limb, but the continuing of the tendinous capsule on either side of the bone with the fascia of the leg, for these fasciæ may be considered, as mentioned by Hilton, as expansions of the tendons themselves, *e.g.*, vaginæ femoris tensuris. Thus the capsule of fascia inverting the knee joint may be considered an extension of quadriceps extensor tendon, and the movement of the joint depends largely upon its continuity.

The importance of accurate apposition of the fragments should not, however, be underated, as unless special precautions are taken, the separation may become increased and the union weakened. The joint should be kept stiff for at least one year.

With bony union there is often more limited movement, and thus short ligamentous union is the best. The consideration of this will show that curing the patella is an unjustifiable operation as a rule of practice, the accurate apposition of the fragments not being of sufficient advantage to justify the risks incurred by the operation. The only cases in which the operation is justifiable, are those very exceptional ones in which the limb has become quite useless from non-union.

Physical Society.

Thursday, January 20th, 1887. Mr. GEORGE ROWELL, read a paper on

"PUERPERAL ECLAMPSIA,"

of which the following is a brief abstract:—

ECLAMPSIA occurs in about one labour out of every five hundred, and accounts for one-eighth of the death of puerperal women. Primiparæ are especially liable to it, and therefore the average age of Eclampsia cases is not over 25.

The attack is frequently preceded by premonitory symtoms, e.g., headache, vertigo, affections of sight and hearing, mental confusion or depression, gastric disturbance, and, most important of all, albuminuria. The fit itself is epileptiform, but without any initial cry. It is followed by stupor, which may be continuous if the fits occur in rapid succession. In such cases the temperature is high, the pulse frequent and of high tension. The urine is scanty and contains albumen, and often blood. Eclampsia always brings on or accelerates labour, as the uterus partakes of the convulsive action, and in favourable cases the fits cease as soon as labour is completed. The prognosis is serious, death being due to asphyxia or exhaustion, and is worse in proportion to the earliness of the stage in which the fits occur. About half the children are still-born.

The post-mortem results are exceedingly indefinite; but the central factor in the pathology is albuminuria, as pointed out by Dr. Lever in the Guy's Reports of 1842. These conditions concur to produce the fit (1) a poisoned state of the blood, due to renal insufficiency; (2) the increased irritability of the nerve centres in pregnancy; (3) some stimulus to evoke the fit.

The main indications in treatment are to moderate the central nervous irritation, to cut off emotional and peripheral irritants, and to eliminate all complicating morbid conditions. In rare cases, bleeding is useful. Chloroform and chloral are of great value; but the rational mode of treatment is to produce diuresis at once. For this purpose the warm wet pack may be tried, but a more certain method is to inject ⅓ gr. of pilocarpine. Copious sweatings should occur in 5 minutes, and the fits will often stop at once. As Dr. Horrocks has shown, failure may be due to the solution of pilocarpine not being perfectly fresh. Dr. Horrocks has also observed that labour is accelerated by pilocarpine. In all cases it is desirable, if possible, to anticipate an attack of Eclampsia and induce premature labour.

W. ARNISON SLATER, B.Sc.

Passim.

The Special Appeal Fund has, the Treasurer informs us, reached £44,000. May it still increase.

Seventy-two pounds were collected in the little Church of St. Paul's, in Bermondsey. We hope the other Churches in the neighbourhood, and they are many, will follow the example so set them. It can hardly be a debateable question whether those who suffer in the body at home are not more deserving of charity than the savages who are contented in mind—till they are converted—abroad. Yet how many thousands of pounds are annually so spent in questionable efforts to gain questionable converts to questionable tenets, while Hospitals are struggling with inadequate means to relieve sickness, and pauperism is increasing, and thousands are half starving, and these facts are unquestionable at home?

The many friends of Dr. G. E. C. Anderson who were rejoiced to hear recently of his marriage, will learn with sorrow that he was taken seriously ill with fever, shortly after that event. That the next African mail may bring news of his recovery will be the hope of all of us who knew him.

We acknowledge with thanks a communication from "R."

Green Extracts.

"THE BRAIN AND ITS FUNCTIONS."
By Professor Ferrier; 2nd Edition.

SECOND NOTICE.

Chapter IX. treats at length of the sensory centres, visual, auditory, olfactory, and tactile. The progress made lately in the accurate localisation of these functions is due nearly entirely to the introduction of rigid, antiseptic precautions in operation on the brain of animals, for which we are indebted to Professor Yeo, of King's.

The results gained in this way are important, and as they have not yet filtered into the text books, it may be useful to summarise them here.

Visional Centres—

(*a*) To cause complete and permanent loss of vision in both eyes, it is necessary completely to extirpate both angular gyri, and both occipital lobes. Both occipital lobes may be removed in their entirety without the slightest appreciable impairment of vision. A destructive lesion of one angular gyrus caused temporary amblyopia in the opposite eye. This, however, is transient, vision in both eyes being apparently normal in a few days.

Destruction of occipital and angular gyri on one side caused transient amphyopia in the opposite eye, and more or less enduring hemiopia in both eyes towards the side opposite the lesion.

These experimental results seem to me conclusively to prove Ferrier's conclusions. Each occipital lobe is in relation with the half of each retina on its own side, while each angular gyrus is in relation with the centre (macula lutea) of the opposite eye, partly by fibres which are supposed to cross in the chiasma, and partly by fibres which reach it after decussation in the lower visional centres—possibly the corpora quadrigemina. At the same time also, a partial intermingling in the chiasma of the fibres from the centre of each eye brings each angular gyrus to some extent also in relation with the eye on the same side. Ferrier justly ridicules the imbecile nonsense talked and written by Munk on the visual and other centres.

(*b*) The localisation of a special area of visual perception in the cortex, is based on structural as well as functional relations with the eyes. So that a functional equivalence or indifferentism of the various regions of the cortex and the theory of one region compensating for the loss of another, are assumptions which involve anatomical impossibilities.

Auditory Centre—

This is shown to be situated in the superior tempero-sphenoidal lobe. Destruction of this lobe causes permanent deafness to sounds entering the opposite ear.

Olfactory and Gustatory Centres—

The olfactory centre is localised in the hippocampal lobule, and is situated on the *same side as the corresponding peripheral organ.*

The gustatory centre is probably situated close by, at the lower extremity of the temporo-sphenoidal lobe.

Interesting in relation to these statements, is the occasional occurrence in man of *ageusia* and *anosmia* as the result of severe blows on the head, especially the vertex. The base of the brain, including the olfactory centres, would be here affected by *contre-coup.*

Tactile Centre—

Ferrier locates this in the falciform lobe of Broca, including the callosal and hippocampal regions. He shows that there is no evidence of the existence of a special centre for "muscular sense."

These facts have an important bearing on the subject of hemianaesthesia of cerebral origin, and show that

Charcot's views on hysterical hemianaesthesia are clearly untenable. Charcot ascribes this condition to a suspension of the functions of the sensory centres of one hemisphere. If this hypothesis were correct, at the same time as the cutaneous hemianaesthesia, we should have crossed bilateral hemiopia, crossed deafness, and anosmia on the side of the lesion; whereas, in hysterical hemianaesthesia, we see amblyopia, anosmia, and deafness, on the same side as the cutaneous anaesthesia.

This shows clearly that this condition cannot be caused by a suspension of the activities of one central hemisphere.

Ferrier would explain the anosmia occurring in hysterical cases by the anaesthesia of the nostril, the nerves of common sensation being, besides the olfactory nerves, essential to the sense of smell. In this case, however, there would be bilateral anosmia; and, morever, this explanation would not account for the crossed amblyopia, and absence of hemiopia. In fact a satisfactory explanation of the symptoms of hysterical hemianaesthesia has yet to be devised.

In Chapter X. the mode of activity of the motor centres is discussed.

The varying effects of lesions of the motor zone in different animals has given rise to many difficulties in accepting the doctrine of cerebral localisation. Opposed to the enduring and absolute effects of lesions of the motor zone in man and monkeys, are the facts that in dogs a partial recovery of motor power takes place after complete destruction of this zone, while in pigeons the effects even of total ablation of the cerebral hemispheres pass off in a few months, so that to a superficial observer, the pigeon appears in all respects normal. Hence many physiologists have denied the specific localisation of motor functions in the cortex, or have thought that a process of compensation is effected by other parts of the hemispheres taking up and performing the functions of the centres which have been destroyed. This latter hypothesis Ferrier shows to be untenable, as he says, "Such a mode of interpretation is no more justifiable than the supposition that the organ of vision may take up the functions of the organ of hearing, or that a nerve may be at one time a motor nerve, and at another a sensory nerve, or perform both functions at once."

He shows that the differences observable in the effects of destruction of the cortical centres in different animals depend on the degree or extent in which conscious discrimination, as distinct from automaticity or mere reflex action, is concerned in the ordinary modes of activity manifested by the animals operated on.

Thus in the rabbit and dog, where voluntary control over movement is acquired soon after birth, showing that the machinery for the production of these movements is already present in the lower centres, the centres of voluntary motor acquisition may be removed without completely or permanently interfering with the powers of locomotion. However even in these animals, for all positive actions implying conscious discrimination the limbs are permanently paralysed.

In Chapter XI. the functions of the basal ganglia are treated of. With regard to the corpora striata, Ferrier concludes that they are "centres of innervation of the same movements as are differentiated in the cortical motor centres, but of a lower grade of specialisation." This must not be mistaken for Meynert's projection theory, which has been shown to have been based on insufficient evidence. Although a good deal of work has been done to elucidate the functions of this optic thalami, it has been, so far, so conflicting or insufficient in detail, that Ferrier, in spite of his unrivalled power of analysis, does not succeed in throwing much light on the subject. We are still in the dark as to what the real functions of these bodies are.

Chapter XII. deals with "the hemispheres considered psychologically." The relations of mind to matter has been the favourite subject of speculation of philosophers from the beginning of the world, and will probably continue to be so till the end of all time. Hence this chapter, which is the most fascinating of the whole work, will probably be the most widely read. As it contains a resumé of the physiological aspect of psychology, it will be impossible here to notice it fully.

The most interesting part to the physician is that in which aphasia and allied disorders are treated of. In all these there is either a blotting out of some part of consciousness which is connected with a special sense organ, memory, which is merely a fainter revival of consciousness, being lost at the same time, or loss of power over some particular actions which are connected with psychological processes, and which are the outward and visible sign by means of which these processes are manifested to the external world. He mentions the following examples of this affection :—

(1) *Aphasia*, or loss of power of articulate speech, although the patient can understand all that is said to him. This is often complicated with *agraphia*. These two belong to the second group of affections, and are caused by affections of Broca's convolution in the motor zone.

(2) In the first group of affections we find 'word blindness' and 'word deafness.'

Word blindness is connected with lesion more particularly of the *angular gyrus of the left hemisphere.*

Word deafness is found to depend on lesions involving the *left superior temporo-sphenoidal* convolution.

Chapter XIII. gives a full account of cerebral and cranio-cerebral topography, a subject which has recently become very important in connection with brain surgery.

In conclusion we may mention that the book is 'got up' in a style worthy of the contents, being excellently and clearly printed on good paper, and capable of being opened without cracking the binding.

We congratulate Professor Ferrier on the particularly *English* merits of the work, and think the sooner it is translated into French and German the better, as it cannot but prove a most potent factor in influencing the progress of brain physiology in all countries.

E. H. STARLING.

DRESSING EXTRAORDINARY.

We take the following in full from the South African Medical Journal for December, 22nd, 1886:—

VITAL POWER OF NATIVES.

By S. P. Impey, M.D., M.C.

The second case to which I wish to draw your attention is that of a man, aged about 35 years. Three weeks before I was called in to see the case the man had been struck with the pointed end of a pick-axe, just above the frontal sinus, in the middle of the forehead. The blow had fractured both tables, and had made a triangular opening in the skull. This was a most perfect isosceles triangle, with a base measuriug about an inch and the two sides an inch and a half. The base was parallel to a line joining the two eyebrows, and about half an inch above them. The apex was in the median line of the forehead. External to the triangle the bone was sound, a chisel could not have made a neater wound. When I first saw the case, the fractured portion had been removed, so that a triangular opening was left through which the interior of the skull could be distinctly seen and felt. On enquiry, I learned that the man had suffered a great deal during the first week, but his intellect was bright; after that time the pain diminished and the intellect became more and more cloudy till three days before I saw him, when he fell into a kind of stupor from which he never awakened, but died the next day. He had no proper medical attendance (but his wife had done her best for him) during the whole time of his illness. The natives have in their surgery a great love for probing wounds, and the wife had proved herself an able surgeon, for she had not failed to use the probe energetically. In this case the woman had used the wing feathers of a fowl as probes. By stripping off the webs, excepting just at the point of the feather, she had made a most useful instrument for removing any pus from the interior of the wound. Using one of these feathers as a probe, she used to introduce it into the wound, and then, by twirling it between her thumb and forefinger, she collected and removed a large quantity of what she considered obnoxious pus. I made a post mortem examination, and found to my astonishment that this woman with her feathers had removed a large portion of brain matter, in fact had almost emptied her husband's cranium. From the external opening she had drilled a hole four inches deep (in fact as far as she could reach with her feathers), and about two inches in diameter. The excavation extended horizontally backwards in the median line, so that a good portion of each hemisphere had been removed. The falx cerebri was intact. What the woman thought was pus was in reality brain matter. This woman had for three weeks made daily attacks upon her husband's brain, and had at each attack removed a portion of it, and yet the man survived it; I am convinced he would have been liviug yet if the woman had not removed too large a portion of the brain. Even the vital powers of natives have a limit. I have never met cases as interesting as these two in all my reading, therefore thought they would be interesting to those who may read your widely circulating journal.

Hospital News.

LIST OF INTERESTING MEDICAL CASES IN WARDS.

2	John—	Oesophageal Obstruction.
6	„	Pyrexia.
7	„	General Paralysis (?).
14	„	Hæmorrhage into Cord (?).
15	„	Menièr's Disease.
18	Miriam—	Cerebral Tumour (?).
27	„	Morbus Cordis.
31	„	Alcoholic Paraplegia.
10	Stephen—	Ascites—Large Liver.
12	„	Leprosy.
26	„	Gall Stones.
31	„	Ascites.
34	„	Lead Palsy.
16	Mary—	Alcoholic Peripheral Neuritis.
33	„	Ascites. Chronic Peripepatitis of Tubercular origin (?).
	„	Paralysis after Chorea.
Cot.	„	Hydatid of Lung.
16	Philip—	Friedreich's Disease.
24	„	Probable lymphatic growths of post. mediastinum.

LIST OF INTERESTING SURGICAL CASES IN WARDS.

1	Cornelius—	Head injury.
2	„	Gunshot wound of thigh.
13	„	Fractured Spine, lumbar region.
Stephen	Private Room—	Resection of Intestine for faecal fistula.
1	Lydia—	Carcinoma Mammae.
20	„	Abdominal Tumour.
13	„	Athetosis-Talipes.
7	Job—	Epithelioma of Penis.
22	„	Melanotic Sarcoma.
23	„	Lithotrity.
30	„	Traumatic Orchitis.
2	Martha—	Knee.
22	Lazarus—	Acute Periostitis.
14	„	Sarcoma of Toe.
12	„	Abdominal Tumour.
7 & 8	„	Charbon.
8	Luke—	Removal of Nose for growth.
15	„	Cystic growths in Neck.
2	Naaman—	Ankylosis of Jaw.
5	Dorcas—	Large masses in Neck. Dyspnœa.
1	„	Tumour in Groin. Hernia (?).

The list of vacant appointments is just out, and will be open till the 12th inst.

PATHOLOGICAL NOTES.

Excision of Knee—Tubercular Meningitis.

M., 34, had diseased knee for 5½ years. Well marked pulpy changes with suppuration. Excision performed. Supperation persisted. Ten days before death, headache, drowsiness, oculo-motor paralysis, optic neuritis, T. 99. Death 15 weeks after the operation.

Autopsy. — Left pleura universally adherent; old phthisis at left apez, with very small vomica. Grey tubercles in left base with patches of pneumonia. Right lung shewed much fibroid change at apex from old phthisis.

Other viscera healthy.

Well marked basal meningitis with disseminated tubercles on all the vessels. Lymph especially thick about the nerves of the base. Much distension of all the cerebral ventricles.

Apposition of bones at the excision very good; close union by means of callus over some portion; large quantity of caseous pulpy material behind the bones, some of which had crept in between the bones. Probe could be passed from one side of knee to the other.

Aneurysms of Legs—Double Ligature of Femoral—Absorption of Ligature—Bronchitis.

M., 43, Hawker, had Syphilis-Bronchitis for 8 years. Three years ago aneurysm developed in R. Hunter's canal, which was cured by ligature of the femoral. Fifteen months ago another aneurysm formed behind left knee, for which superficial femoral was ligatured with silk. Three months later, as slight pulsation persisted, the common femoral was tied with catgut, but this failed to stop the pulsation completely. Nine months later he again came under observation with signs of breaking down in the left aneurysm. Left thigh amputated. Death 17 days afterwards from bronchitis. Autopsy not permitted.

Examination of Leg.—The aneurysm began at bifurcation of left popliteal, and extended downwards beneath calf muscles, close on the bones, where it had formed an enormous sac; left common femoral quiet. Patient showed no signs of the ligature, which must have been completely absorbed.

Left superficial femoral well occluded by ligature which had not disappeared—it was within ½-inch of the origin of profunda. Plenty of collateral vessels.

Right leg remained perfectly cured, but could not be examined.

The above notes have been kindly supplied by Dr. Charles Gross, of Newington infirmary.

At the Moxon Memorial Meeting held on Tuesday last, the matter was referred to a committee. The attendance was very good. It is proposed to devote a portion of the fund to erecting a memorial tablet at Guy's, the major part being set aside to found a medal to be given triennially to the author of the best researches in Medicine and Pathology.

Sport.

On the 20th the Football Team met the so-called "Old Crocks" of the Hospital. We were much surprised at the pace and wind of some of the veterans, who quite deserved their victory of 3 goals to one goal and 3 tries. Steele was a host in himself, while Jordan ran extremely well. The game lasted an hour and a half, and some of the Crocks are still breathing very short. If the match did nothing else, it certainly showed how poorly the Guy's team could play if fairly on their mettle. Their combination was almost nil, their passing feeble and injudicious, and generally they played as if they had no interest in the result. The Crocks gave a really good exhibition of passing.

Two days later we travelled down with some fear and trembling to Sydenham to watch the play against the local Club. The improvement of the Guy's team was an agreeable surprise. The forwards showed to much greater advantage, and the passing was at times very accurate. The result was a victory of 1 goal and 4 tries to 1 try. The last quarter of an hour, however, clearly showed the weakest point in the team. They were obviously out of condition and began to stand about as if they were keen for the whistle to go. This would be disastrous in a cup match, and we trust every member of the team will make a point of being able to come up fresh to the very end.

Guy's *v.* Croydon.—Played on Saturday 29th, at Croydon. After the Cup Tie on Friday, the Hospital had to import a few old members of the team to journey to Croydon. The game was a very good one, and victory rested with the Hospital by 4 tries to 1. The hard work of the previous day told on many of the forwards who played. There was, again, that old fault of "not following up," noticeable. The game for most of the time was carried on in the opponents' half. Prime obtained a try in the first half, but the try at goal was a failure. In the second half the Hospital had matters mostly their own way and gained 3 more tries (Steele, Instone, and Cruickshank), but the tries at goal were all failures. Steele at half played very well; and Wallis at back was as safe as ever; of the forwards, Cruickshank, Rogers, and Marriott, were the best. S. S. Wallis, back; Prime, M. E. A. Wallis, Russell, three-quarter backs; Steele, Bryant, half backs; Fawcett, Joslin, Swayne, Instone, Rygate, Kelsey, Rogers, Marriott, Cruickshank.

Steele's try after a pretty and unselfish pass from Rogers; Cruickshank's from a good pass by Steele.

The passing among the forwards and three-quarters showed some improvement, but Steele was not up to his usual form.

Tries at Goal:—Cruickshank (1st 2), Prime (2nd 2).

1ST ROUND CUP TIES.

LONDON *v.* GUY'S.—This match was played on Friday, January 28th, on the ground of the Richmond Athletic Association, at Richmond. The ground was in very good condition, and their was but little wind.

Russell kicked off for us, and the ball being well followed up, the first scrimmage was formed in our opponents' 25.

The London forwards soon showed themselves to be heavier, and gradually worked the ball up to half-way, but a good bit of play by Rygate regained the lost ground. Soon Steele obtained the ball and passed it very neatly to Prime who got behind. It was contended that he had run into touch in goal, but the referee decided in our favour. Prime took the place, and, although the shot was not an easy one, kicked a very good goal.

London kicked off from half-way, and rushed up so that the scrimmage was formed in our 25. After a little loose play among the forwards, the London three-quarters obtained the ball, and some passing among them resulted in Fagan's dropping a goal—the ball hit the cross bar and then bounced over.

We kicked off again from half-way, and Rygate and Allport, by some good play, managed to reach and keep the ball in London's 25. Next, Bryant passed very neatly to Cuff, who made some ground and then handed it on to Prime; the latter, however, was driven into touch. We continued to press our opponents, and they soon had to touch down in self defence, London dropped out and the ball was well returned by Russell. Our men, unfortunately, were too hasty, and the London claimed a free kick. The ball was well returned, and eventually a scrimmage was formed in the middle of tne ground.

Some good play by Allport and Cuff, now took the ball into the enemy's quarters, but Williams relieved his side by a good punt which went into touch near the half-way post.

The London forwards then, by a good bit of loose play, brought the ball down into our 25; Williams next showed prominently and the game began to look dangerous for us. Our forwards then rallied, and with the aid of a short run by Steele, worked the ball to the middle of the ground again; more good play by Steele and Allport took it still further. This advantage was, however, counteracted by another good rush by the London forwards. Williams then obtained the ball and passed to Fagan, who was well tackled by Russell.

Five minutes interval for repair of damages to garments, &c., now became necessary.

Shortly after re-starting Fagan dropped the ball into our 25, but it was well returned. The forwards now took the ball into the enemy's quarters, and some good play by Rnssell and Cuff endangered their goal. The London forwards, however, quickly regained the lost ground. Then Prime obtained the ball, but was stopped by Fagan. The London forwards made another rush, and were only stopped by Wallis, who fell on the ball about half-way; they rushed it on again, and a scrimmage was formed in our 25. Steele, however, gained a little ground, and then Cuff obtained the ball from a bad pass by one of our opponents, took it to half-way. Raw and Fawcett next took the ball on, but Williams releived his side by a good drop into touch. Half-time was now called.

On resuming Russell missed returning the ball after the kick off, and for some time we were much pressed; but our three-quarters' defence was very good. Soon Cuff relieved us by a long drop, the ball going into their back's hands who failed to return it. Unfortunately our forwards were not following up hard, so that this was not taken advantage of as it might have been. The game was now in London's 25, but they soon worked it down into ours again. Matters now looked very bad for us—Hutchinson crossed our line but was tackled by Rygate and personally conducted outside again before he could ground the ball. We then touched down in self defence. Cuff dropped out and Hutchinson returned the ball into touch. After a little forward play, in which Instone showed prominently, the London three-quarters gained possession of the ball, and by some good passing took it dangerously near our line. Fagan got away, but was very well collared by Prime. Cuff again relieved us by a long drop, but the forwards did not make full use of the advantage. After some tight scrimmages the ball became loose, and Fagan tried to rush it down, but Wallis saved us by a good punt; the ball was returned into touch. Fripp and Rygate now gained ground by some good play, but their work was neutralized by a rush of the London forwards. Cuff then picked up the ball and got away, but was forced into touch.

Our forwards now steadily worked the ball up, and a drop by Cuff went into touch at about half way. Fagan soon obtained the ball and made a good drop. Shortly afterwards some good passing on the part of the London three-quarters nearly resulted in Fagan's getting in. The ball fortunately went into touch in goal. Cuff dropped out and the ball was well returned. Rygate then made a short but useful run, and shortly afterwards sides was called. The match thus resulted in a draw, London scoring 27, and Guy's 26 points.

Our team consisted of—

S. S. Wallis	*Back.*
H. E. Cuff F. M. Russell (capt.) C. J. Prime	*Three-quarter backs.*
H. G. Steele J. H. Bryant	*Half backs.*
A. Allport A. D. Fripp C. D. H. Rygate T. O. Raw J. Fawcett W. C. Swayne E. T. D. Mitchell H Joslin W. Instone	*Forwards.*

Russel moved back to take Jordan's place at three-quarter, whilst Bryant took his at half back.

The London team consisted of—

H. C. Barnes	*Back.*
A. Fagan (capt.)	*Three-quarter backs.*
W. Williams	
R. T. Hutchinson	
W. Mortimer	*Half backs.*
A. C. Major	
H. Corner	*Forwards.*
W. T. Grenfell	
W. C. Hichens	
C. T. Kirton	
W. Walkines	
P. A. Colmer	
J. L. Rees	
P. A. Green	
J. Kyffin	

The game was hotly contested throughout, and our team deserve great praise for their determined play. During the first 40 minutes we had slightly the better of the game, but after half-time, the game was confined, with a few exceptions to our 25. This points to our weakness, i.e., lack of training, but this is a defect which can be easily remedied before the next match. The play all round was very good, the tackling being especially so.

One fault was very noticeable, i.e., that the forwards did not always follow up when the ball was kicked; they did so with very good effect whenever the ball was kicked off from half-way on the 25, but did not when the ball was kicked from the field of the play. All played well, but Cuff deserves special praise for his play at three-quarters which was, with few exceptions, faultless, and Steele for the way in which he passed and stopped the rushes of our opponents, whilst Allport and Rygate were towers of strength forward. On the whole the form showed by our team is very encouraging, and we think that with a little more training that we should stand a very good chance of retaining the cup.

The first round of the Inter-Hospital Cup Ties has resulted as follows:—

Jan. 24. Middlesex beat King's by 229 points to 10.
Jan. 25. University College beat St. George's by 93 points to nil.
Jan. 27. St. Bartholomew's beat St. Mary's by 46 points to 1 point.
Jan, 28. London drew Guy's, 27 points to 26.
Jan. 31. Charing Cross beat Westminster by 347 points to nil.
St. Thomas' a bye.

The draw for the 2nd round has resulted as follows:—Guy's *v.* University College, Charing Cross *v.* St. Bartholomew's, St. Thomas' *v.* London, Middlesex a bye.

These matches will be played on February 8th, 10th and 11th respectively.

GUY'S HOSPITAL ATHLETIC CLUB.

The Guy's Hospital Athletic Sports will be held this year on Thursday, June 9th, at the L.A.C. grounds, at Stamford Bridge.

F. M. RUSSELL, *Hon. Sec.*

COLLEGE OF SURGEONS.

JANUARY 14TH, 1887.

SURGERY.

1. Describe the course and relations of the Rectum in the male sex. Give also its blood-supply and the destination of its veins. Note those anatomical points which have an especial bearing upon excision of its lower part.

2. Give the anatomical relations of the Popliteal Artery; mention its named branches, and their distribution. Describe the operation for its ligature.

3. State the various causes of Gangrene when it follows a recent fracture. Give its symptoms and treatment.

4. What swellings may be mistaken for Inguinal Hernia? Give their differential diagnosis.

5. Mention the causes of Asphyxia as met with in surgical practice. Give the treatment appropriate to different cases.

6. Describe the complications which may occur in a case of Acute Gonorrhœa, and the treatment of each.

MIDWIFERY.

1. Describe the different methods of extracting the aftercoming head.

2. Describe the Mechanism of Labour with the face presenting and the chin posterior and to the left.

3. What are the causes and effects of fœtid discharge after Labour? Describe the treatment you would adopt, and the results you would expect from it.

4. What is an erosion of the Cervix Uteri? What symptoms does it cause?

MEDICINE.

1. Describe the symptoms, course, and complications of Diphtheria (*a*) in a slight, (*b*) in a severe case. Give the treatment and the sanitary precautions required, and discuss the circumstances under which surgical interference might be necessary.

2. Describe the symptoms, course, physical signs, and morbid anatomy of a case of Acute Lobar ("Croupous") Pneumonia, and give an outline of the treatment.

3. Give a concise account of the disease called Locomotor Ataxia or Tabes dorsalis, with the symptoms, diagnosis (in early and late stages), prognosis and morbid anatomy.

4. Give the action, therapeutical uses, and doses of the following:—Sulphate of Zinc, Compound Powder of Ipecacuanha, Bromide of Potassium, Subnitrate of Bismuth, Liquor Strychniæ (Liqnor Strychninæ hydrochloratis), Resin of Podophyllum, Nitroglycerine, Tincture of Belladonna.

NOTICE TO CORRESPONDENTS.

The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Guy's Hospital Gazette,

FEBRUARY 19, 1887.

Passim.

THERE seems to be a general consensus of opinion that reforms are urgently needed in the mode of conduction of the Physical Society. This question was broached at a Meeting of the Presidents, hurriedly convened immediately before the last Meeting of the Society, on Thursday.

It was then pointed out that the evil pecuniary condition of the Society was due to the lack of interest in it displayed by the first and second year's men, from whom the bulk of the subscriptions has been hitherto obtained.

These men complain, naturally enough, that it is of no earthly use their coming to the meetings of the Society to listen to papers and discussions on subjects which, at this stage of their career, were perfectly unintelligible to them. To remedy this lack of interest, it was resolved to call attention to the wide range of subjects furnished by the "allied sciences" of medicine and surgery, and to prevail upon members to read papers upon subjects of more universal interest than purely Clinical topics.

A step in the right direction was made by Mr. Colclough, who read a paper at the last meeting on the "Evolution of Reason."

The subject seems rather abstruse, but therein lies its very virtue; for, it must be remembered, the prime object of the existence of the Society is as a school in which men may learn to formulate their ideas into definite sentences, and to deliver them in a clear and concise manner.

At the meeting of the Presidents a motion was proposed and carried to the effect that two Presidents should be appointed from among the first and second year's men. This motion must be approved of in a general meeting of the members of the Society before it can become law.

There are several objections, however, to be urged against such a rule.

In the first place, how are the Presidents to know who are the men most fitted for the post among the first and second year's men? As the men cannot have made their mark at the Physical Society before the election, there will be no guarantee forthcoming of their fitness for the office of President.

Again, the professed object of these men is in order that they may collect subscriptions among the men of their respective years.

It will be a sorry sort of compliment to any man to elect him President, which, in this case, will be merely a synonym for a sort of subscription agent.

We hope, therefore, that this rule will be never adopted.

Probably a great mistake was made when the day of meeting of the Society was changed from Saturday to Thursday. Nobody does any reading on Saturday afternoon or evening, and the Physical Society always provided an instructive and pleasant way of passing the time on these days.

Now, one still does no work on Saturday evening, and has, besides, to break off on Thursday evening in the middle of the week, when one is in the swing of work, in order to come up to the Society's meetings, is to make a great sacrifice of energy and time, a *hiatus valde deflendus*.

We should like to see the whole affair made more comfortable and social.

What atrociously uncomfortable seats we are forced to sit in for an hour and a half! If a premium were offered for the hardest and cruellest seats in London, we think those in the Chemical Theatre would have a "walk over."

It would be better if the Society could meet in some room, where the Presidents would sit in a semi-circle of armchairs, with the rest of the members round them, so that all the members could turn towards any speaker without wringing their necks off and barking their shins in the effort.

And why should the friendly pipe be excluded from these meetings? Many more men would come if they knew they could, during the lugubrious delivery of a concatenation of commonplaces, which must inevitably occur at times in societies like the present, solace themselves thus

solanaceously. Besides, how much easier it would be to speak from behind a cloud of smoke! It is the dread and awful solemnity of the meeting that daunts a would be speaker and makes him stammer, get hopelessly mixed, and sit down amid derisive applause. We hope these projects will be thoroughly threshed out, and that our old Physical may soon be in as flourishing a condition as it has been for the last 57 years.

Do Guy's Students mean to leave to outsiders the entire honour of founding a Memorial to Dr. Moxon? Of the hundred pounds now in the hands of the Treasurer of the Fund, present Guy's men have not contributed a half-penny. Certainly, they have not been asked for subscriptions. Since the meeting of Guy's Students, convened by the Senior House Physician and House Surgeon towards the end of last year, at which some general resolutions were passed, no steps seem to have been taken in the matter. We imagine the duty of organising the subscription crusade for this end would fitly devolve upon the present senior residents. It is to be hoped that the efforts to raise a subscription for the Memorial to Dr. Moxon will not prove as fruitless as the attempt to raise one to Mr. Cooper Foster. It would be a disgrace to Guy's men if they displayed lukewarmness and stinginess in their efforts to perpetuate the memory of one so universally admired and loved, and who has so recently passed from among us.

CLINICAL LECTURE

ON

"A CASE OF FRACTURED SPINE,"

Given by Mr. Davies-Colley, February 2nd, 1887.

Mr. Davies-Colley first gave a short sketch of the case upon which he based his lecture.

Henry P., æt. 27, Cornelius No. 13. Admitted January 18th, 1887.

History of Injury. Patient fell, a distance of about 20 feet, on to a pile while carrying some "deals" along a gangway.

Condition on admission. Patient was collapsed and almost unconscious until the back was examined. Total paralysis and anæsthesia below the waist; all pain referred to lower part of spine.

On examination the injury was apparently at the first lumbar, or last dorsal vertebra, but moving patient for purposes of observation was carefully avoided.

All the reflexes were abolished, and anæsthesia extended nearly up to umbilicus; the upper segments of the rectus abdominalis stood out strongly contracted, while the lower ones were flaccid like the legs.

Respiration was shallow, as much abdominal as thoracic. Urine, on being drawn off, was deeply blood-stained; no casts could be detected in it.

January 12th. Plantar reflexes slightly present, knee-jerks absent, cremasteric reflexes very well marked.

Penis turgid, troublesome cough, retention of urine. Temperature 99·8 F.

After this the planter reflexes diminished, but the cremasteric continued present.

Temperature was irregular, 102 F. one evening being the highest registered.

Urine overflowed a little at times, and soon shewed signs of decomposition setting in, the blood having disappeared after four days. Complete constipation.

Remarks on the Case. The lecturer pointed out that the injury to the spinal cord did not seem to correspond to the apparent site of the injury to the spinal column.

The anæsthesia began just below the umbilcus, which would correspond to an injury of the 8th or 9th dorsal vertebra, whereas the spine of the first lumbar vertebra was displaced.

He mentioned another case in which, upon post mortem examination, the spinal cord was found to be crushed at a point 3 or 4 inches above the fractured vertebra.

In the case now under consideration, however, it was probable that there were two injuries to the cord, for while the line of anæsthesia corresponded to a higher lesion, the feebleness of the plantar reflexes suggested some destruction of the lower end of the cord, with a healthy tract between these two points, as shewn by the distinctness of the cremasteric reflexes.

Another point of interest was the presence, directly after the injury, of blood in the urine, lasting for 4 days. This, he said, must be due either to injury to the kidneys or to acute congestion of some part of the urinary tract. As illustrating this latter cause he related the case of a patient with fractured spine, who began to pass large quantities of blood two days after the accident. This was found after death to be due to an extremely congested state of the bladder.

General Remarks on Fractured Spine.

Causes. Usually due to—falls which double up the body or neck, falling across things, weights falling on the back, or a slip while carrying heavy weights. Gun-shot fractures are rare in civil practice.

Diagnosis. If the cord is not injured it is hard to be certain if the spinal column is injured or not. (Case).

In these doubtful cases it is important to keep the patient for a long time at rest, for inflammatory processes may supervene and abscesses form in the soft parts, which may set up secondary inflammation of the special membranes, or caries may follow. (Case).

Locality of Injury. Usually the spinal column is fractured in the cevrical or at the junction of of the dorsal and lumbar regions.

Signs of Fractured Spine. You have the usual signs of fracture, such as localised pain, inability to use the spine.

On examination you find tenderness, swellings, abnormal projections of long points, depressions and irregularities.

At time mobility and more rarely crepitus. The chief signs, however, depend on injuries to the spinal cord, which might be classified as follows :—

I. *Affections of Nerves of Motion and Sensation, e.g.*
   - A. Paralysis.
   - B. Anæsthesia.
   - C. Hyperæsthesia.
   - D. Reflexes.

Paralysis may occur without any anæsthesia, as the motor fibres in the cord are more superficial.

The hyperæsthesia is often in the form of a tender zone round the body, above the upper limits of the anæsthesia.

At first the reflexes are always abolished, but they usually reappear on the next day; their presence indicates healthy cord below the injury, and if they subsequently disappear, there is probably some destructive inflammation of the cord progressing.

II. *Affections of the Urinary Tract. e.g.*
   - Micturition.
   - Inflammatory changes.

At first you usually get retention of urine from injury to the micturating centre, or to the nerves which connect it with the brain. There may be subsequently periodical unconscious evacuations of the bladder, or a continual overflow when a certain amount of distension is reached.

Urine may be bloodstained directly after injury, or at a later period from secondary nephritis; it quickly becomes fetid and alkaline, not so much from the introduction of septic matters by the catheter, as from loss of innervation of the bladder from injury to the cord.

III. *Affections of the Sexual Organs, e.g.*
   - Priapism.

This is generally most marked when the injury is high up the cord, and is due to vaso-motor disturbances.

IV. *Affections of the Respiratory Organs, e.g.*
   - Paralysis of the Diaphragm.
   - Paralysis of the Intercostal Muscles.
   - Influence upon Vagi of Injury to Spinal Accessory.

When the phrenic nerves are intact, but the intercostal nerves are cut off, so that the diaphragm alone acts, it is curious to see that the thorax in inspiration is drawn in, while the abdomen is expanded; but in expiration the thorax expands, while the abdomen sinks in.

In a case which the lecturer saw, five years after a fracture of the lower cervical vertebra, the sternum nearly touched the bodies of the vertebra, from the constant drag upon it of the diaphragm, which had not been resisted because of the paralysis of the intercostal muscles.

V. *Affections of the Alimentary System, e.g.*
   - Vomiting.
   - Tympanites.
   - Constipation.

The vomiting is often very severe in these cases, but the cause is not quite clear. The lecturer was disposed to ascribe it to interference with the splanchnic nerves, or when the lesion is high up to the influence of the spinal accessory nerves upon the vagus.

Tympanites and constipation are chiefly due to paralysis of the intestines.

VI. *Affections of the Circulating System, e.g.*

Slowness of Pulse.

Vaso-motor Disturbances.

Alterations of Surface Temperature.

The vaso-motor disturbances partly account for the patches of redness, slough, bed-sore, &c., all of which also depend on the want of innervation of the parts, and on the inability of the patient to feel pressure, or to change his position for its relief.

VII. *Affections of the Temperature.*

In conclusion the lecturer classified injuries to the spinal column, as follows :—

a. Injuries low down. Cauda equina injured. Giving rise to—irregular symptoms. Paralysis of separate muscles or groups of muscles, anæsthetic patches. Prognosis good.

b. Injuries to lower Dorsal Vertebra. Giving rise to—Paralysis and anæsthesia of the lower extremities, with loss of control over micturition and defæcation centres. Usually death results after weeks or months from

(1) Urinary troubles.

(2) Bedsores.

c. Injuries to upper Dorsal or lower Cervical Vertebra. Giving rise to some symptoms as B, with the addition of respiratory troubles. Death usually results from lung trouble in 3 to 4 days.

d. Injuries above 4th Cervical Vertebra. Giving rise to the interference to the communication between vagus above, and the respiratory nerves below, so that death at once results.

F. S. HAWKINS.

CLINICAL LECTURE,

By Dr. F. Taylor, January 15th, 1887.

(From Notes by E. P. Manby, B.A. Cantab.)

The subject of the Lecture was a case of Intussusception in John 8. Dr. Taylor read the following notes of the case :—

F. B., æt. 5, admitted on January 9th at 3.30 p.m. Has frequently suffered from prolapsus ani. Was quite well this morning and ate a good breakfast of tea and toast at 9 o'clock. About 11 o'clock had severe pain in the abdomen, for which he was given peppermint, and laid on the couch. Went to stool, but did not pass anything. Was sick three or four times. The pain in the abdomen increased, and the patient was brought to the Hospital and at once admitted.

On admission.—Child is collapsed; extremities cold; pulse 96, temperature 97. When put to bed is very restless, and lies with his legs drawn up. The pain comes on in spasms. In the situation of the hepatic flexure of the colon a swelling can be felt rather ovoid in shape, and in size something between a walnut and a Tangerine orange. The swelling varies in consistence, becoming hard and prominent during the spasms, and subsiding afterwards so as to be soft and indistinct. Nothing felt per rectum. Soon after admission, passed some blood and fæcal matter by the bowels. On seeing the case, Dr. Taylor agreed that it was an intussusception. Determined to try inflation. Chloroform was given; the nozzle of the bellows was introduced into the rectum, and the nates were held together. Dr. Taylor kept his hand on the swelling, and, as more and more air was introduced into the intestines, it was felt to diffuse itself, and there was a definite diminution in the size of the swelling, till at last only a small indefinite thickening could be felt. Inflation was then stopped, and the child put back in bed and ordered Tr opii m iij, brandy ʒi every hour, and hot fomentations to abdomen.

7 p.m.—Child has not been sick; swelling has reappeared, but is smaller than at first. Tr opii m iij repeated.

10.30 p.m.—Very restless; spasms of pain frequent; swelling can be easily felt. Has vomited some greenish, bilious fluid. Chloroform again given, and inflation performed as before, and the swelling again disappeared. Ordered Tr opii m iij, milk ʒv, during the night, and brandy ʒi every two hours.

2.45 a.m.—Has been sick once since the operation; sleeping quietly since 1.40.

Jan. 10th.—Patient quite comfortable this morning; no more sickness; some thickening to be felt in the position of the swelling. From this time the child was quite well, and was discharged from the Hospital at the end of the week.

Remarks.—The points in the diagnosis of an intussusception are :—

Sudden attack (having been previously quite well).

Presence of a tumour.

Pain.

Vomiting.

Passage of blood.

In this case we were fortunate in having this last symptom so soon, as it may not come on for three or four days.

The commonest form of intussusception is that in which the ileum and ileo-cæcal valve

pass into the colon, and may even appear at the anus. Thus the position of the tumour may vary. The altering consistency, as was found in this case, is an important point in the diagnosis. The passage of blood is easily understood by considering the vascular arrangements of the bowel, so that, as more and more bowel enters, constriction of the vessels increases, the mucous membrane becomes congested, and then hæmorrhage occurs. Intussusception is not necessarily intestinal obstruction, so that there need not be abdominal distension or absolute constipation. If all the above symptoms are present, the diagnosis is not difficult; but Dr. Taylor related a case which was mistaken for intussusception, in which there was pain, passage of blood, &c., but no tumour, and which turned out to be enteritis.

Course of these cases.—Some are very acute and lead to death in 24–36 hours, from collapse; others may exist for months without very acute symptoms; and here of course the obstruction is not absolute. Dr. Fagge related a case in the Guy's Hospital Reports, which went on for three months, and then had symptoms of obstruction, and died.

Terminations.—Acute: may kill promptly as above stated.

Chronic: sometimes, but very rarely, subside without mechanical interference.

May recover by sloughing of the entering and returning layers.

Death may occur from strangulation of the intestine or suppurative peritonitis.

As to treatment.—If recognised as a case of intussusception, take measures at once to reduce it. As a rule inflation may, especially in early cases, be tried before abdominal section. With regard to inflation:—Chloroform is a distinct advantage by relaxing the abdominal muscles and preventing struggles on the part of the patient, often a child. Dr. Taylor thought air was better than liquid for injection, as it is elastic, compressible, and only seems to exert that temporary pressure which is desirable. It is not necessary to introduce so much air as to greatly distend the abdomen; but as the ordinary bellows is an imperfect instrument on account of leakage, fairly vigorous working is required, and the hand on the abdomen can always estimate the degree of distension. Having obtained a moderate amount of distension, stop the bellows and knead the abdomen to help the diffusion of the air. Then continue the inflation till the swelling disappears, which it may do gradually, or with a sudden click. Dr. Taylor likened this intermittent use of air-pressure to action of the uterus in parturition.

After treatment.—Keep the patient quiet in bed, give a little opium, and let the diet for a a few days be light.

In this case inflation was used twice. In the 'Lancet,' a few weeks ago, a case was reported in which it was successful after the fourth application; but whether one, two, or more inflations should be attempted, must be determined separately in each case. Dr. Taylor was prepared to ask for surgical assistance if the second inflation had failed.

Physical Society.

THE NATURAL DEVELOPMENT OF REASON, FROM SMALL BEGINNINGS.

(EVOLUTION OF REASON.)

(A Summary of a paper read before the Physical Society on February 3rd, 1887. By Mr. FRANK COLCLOUGH.)

Owing to the unavoidable absence of Mr. Price on Thursday, February 3rd, who was to have given the Society a paper on "The Modes of Death," Mr. Frank Colclough, at the request of the "Committee," prepared a brief paper on this very interesting subject.

He first dealt with the *apparent purposive action*, influencing plant life and obscure animal life; then those animals possessing nervous functions, *i.e.* with a defined but relatively slight intelligence: and, finally, he referred to animals with conscious reasoning powers.

He instanced the movements of protoplasm in general, and especially when under local stimulus, as proving physical actions very similar to those produced in higher organisms.

Looking upon a plant from a Natural History point of view in the obtaining of its food,—light and air,—in escaping from its enemies, and the reproduction of its kind, illustrations were given as in climbing plants, the distribution of seeds, the inheritance and adaptability of plants to circumstances, which are best seen in the fertilisation by insects, being first an injury but eventually a gain, and, as progress was made in their methods, the

plant learnt to attract insect life by varied means, such as providing two kinds of pollen, producing bright colours, sweet juices, and odours. He considered the near future would demonstrate that these phenomena were not due to mere physical causes, as all life seems purposive.

The next stage, namely, the group of animalculæ, said to possess no nervous fibres, yet having apparently intelligent aims in their movements, was briefly dealt with. The amœba was referred to as being able to distinguish a rough from a smooth surface, to appreciate what it liked and disliked; and extracts were read of some curious phenomena in the actions of amoetæ and rotifers.

Animals possessing nervous motor centres were now touched upon as approaching conscious movement, and using specific means to attain an end, although the reader considered that in most cases these creatures may not realise the way in which the means made use of acted.

Mr. Colclough took Romane's definition of Reflex Actions as being a non-mental operation of the nerve centres in the production of *apparently intentional* movements, and showed that the physical movements necessary to life were due to automatic or reflex action by referring to pigeons existing for some days after the removal of their cerebral hemispheres, and yet meeting their wants by drinking and swallowing, on water and food being placed in their beaks; by the movements of flies and snakes after decapitation; and the well-known physiological experiments which had been performed on frogs.

Hereditary causes of the varied physical and mental development were considerably dealt with, and instances where previous experience, means of imitation and chance, could not possibly have affected the hereditary instincts.

The peculiarly developed instincts of ants and bees among the insects, and beavers among the mammalia, having been so well authenticated, were only referred to, though the ridiculous side, inherent impulses, was touched upon, instancing the beaver protecting itself from an imaginary stream of water by forming a dam from any material about it, when domesticated; and also a sitting hen being satisfied with stone eggs.

The fact of the higher intelligent animals subordinating instinct to reason was dwelt upon, a man given as now following but few special instincts, his actions being guided by reason, memory, adaptability, and the enormous advantages of acquired speech.

He maintained that the origin of instinct was due to inheritance and Natural Selection, local necessities and climate having induced special efforts, the teaching therefrom being transmitted to living organism as we now find them.

In intellectual development the difficulty of distinguishing between reflex action, instinct, and reasoning faculties, was pointed out, and analyses were given showing that there was no abrupt division between metals and metalloids in chemistry; no demarcation between gases and liquids in heat; the impossibility of stating where plant life ends and animalism begins, thus showing one gradual upward growth of Nature, each stage merges into the one above by imperceptible degrees, everything being blended into one harmonious whole and influenced by a common law of progress.

Mr. Colclough argued that complex motions were common to man and the higher animals, such as jealousy, pride, sympathy, curiosity, adaptation, imitation, to a more or less degree, according to the reason possessed, and that all animal life suffered the same bodily diseases, and could transmit them.

The discussion was opened by Mr. ROWELL, who congratulated Mr. Colclough upon the very interesting paper the Society had had the pleasure of listening to, and while agreeing with him on the main points at issue, rather demurred to Mr. Colclough's definition of instinct and reason. The speaker then referred to some well-known instances of remarkable sagacity displayed by animals, notably in the pursuit of their prey, and asserted that in such cases as these Mr. Colclough's definition would fail.

Mr. C. W. HOGARTH agreed with the writer of the paper in his definitions, and said it might be placed in a concise form thus: given the same circumstances and the same animal, or one of the same species, if the animal were guided by instinct it would under similar circumstances perform similar actions, whilst if it obeyed reason its actions would follow no fixed law. He thought the paper had ceased just at the critical part of the question and when it was difficult to prove evolution. Many naturalists had claimed high reasoning faculties for animals, and Mr. Hogarth proceeded to detail several instances often quoted by them, which, however, he himself thought would not stand severe criticism. Since had we asserted that a soul was given to each animal, but in the speaker's opinion this was mere speculation.

Mr. W. SLATER suggested that the line between instinct and reason should be drawn at the point where personal consciousness began. He believed that some indefinite kind of psychical states accompanied all material phenomena whatever.

Mr. J. W. WASHBOURN said the paper had been discussed from a biological and metaphysical point of view, but nothing had been said from the pathological aspect of the question. He pointed out that in insanity there were excellent examples of both the evolution and the degeneration of reason; as example of the former he cited various grades of idiots, and of the latter general paralysis of the insane.

Messrs. Moyse, Lloyd Roberts, A. S. Taylor, also took part in the debate.

Mr. Colclough then replied.

The author of the abstract of Mr. Rowell's paper on Puerperal Eclampsia, published in our last issue, asks us to state that the signature was added without his permission, and after the abstract left his hands.

Correspondence.

CHARITY AT HOME AND ABROAD.

To the Editor of GUY'S HOSPITAL GAZETTE.

DEAR MR. EDITOR,—Will you allow me to offer a few remarks in qualification of the comparison you make between Hospitals in London and Foreign Missions?

(1) The tenets which foreign missions teach are only "questionable," as everything not a matter of absolute demonstration is questionable. With few exceptions (chiefly the Catholic Missions) the doctrines taught are not those of one sect or another but the common doctrines of Christianity, and the practice taught, that of common Christian morals.

(2) Savages and heathen nations generally are not happy or contented in mind "till they are converted." Apart from infanticide, oppression and vice, they suffer from superstitious fears, and from the rites of cruel, burdensome, and impure religions. Read what Sir John Lubbock, Mr. Taylor, and Mr. Herbert Spencer say on this subject.

(3) The benefits conferred on them by missions is not questionable. In China and India and the South Seas, among Bechuanas and Esquimaux, Karens and Tahitians, Hovas and Sandwich Islanders, the results are far larger and deeper than anyone can tell who has not seen or read for himself. But take the testimony of the best men in India, of the Laurences and Edwardes, of Havelock and Montgomery, of Bartle Frere in Africa, and of the late Mr. Darwin in the Pacific (see his remarkable account of the Missions in the Pacific in his "Voyage of the Beagle.")

(4) Every religion must make converts or it must die out. Judaism in ancient times, Buddhism in ancient times, Islam from the beginning and still in Africa (with great benefit to the pagan negroes), and Christianity always, have been propagated by missions. Moreover, as the Duke of Wellington remarked to a great chaplain who said he did not approve of "preaching to niggers:" "You have your orders, 'all the world' and 'every creature;' your business is to obey them." What countries send out the largest foreign missions? The freest, the most enlightened and the most benevolent at home: England and America; next comes Germany, with Switzerland, Denmark, Holland and Norway; and next France. After all, who are we to disbelieve in converts? Are we not converts ourselves? But for foreign missions we should be in the state of our savage ancestors before they became Christian and civilized.

(5) Giving to foreign missions does not prevent giving to Hospitals. No one gives all he has, and very few a fixed proportion of it. But the same principle which leads to give in our direction leads to give in others, and beneficence grows by exercise. All experience shows that the giving classes are few, and that the same classes give to religious and to charitable objects. When a man says "why spend money on the Heathen abroad? why not keep it for the Heathen at home?" it is likely that the Heathen at home will be the speaker. A man is not likely to love his wife and children better because he carefully excludes his first cousins from his benevolence, lest so scanty a virtue should run short. The same springs of action animated St. Paul as a missionary, and Howard as a philanthropist. Nor is this strange, for the same authority which enjoined foreign missions taught the lesson which is the fitting motto of our Hospital—*Dare quam accipere beatius*.—I am, yours faithfully,

AN OLD GUY'S MAN.

To the Editor of GUY'S HOSPITAL GAZETTE.

SIR,—I trust you will allow these few lines to appear in the GAZETTE as a protest against the remarks in the issue of the 5th Feb. under the head of "Passim," in connection with the Special Appeal Fund.

However much we must all feel the urgent need that exists for increased help to be given to the suffering poor of our Metropolis, we must surely all agree as to the discredit which must be brought upon our youthful GAZETTE by such an attack upon the Christian Religion as is made by the writer of "Passim."

One would not be surprised at this from the office of the "*National Reformer*," but it is strangely out of place when it emanates from a Hospital which has, for generations, numbered among its Governors, Staff, and Students many Christian men.

It is of course the tone of the article, so hostile to Christianity itself, and to Christian Missions, to which one objects. It is quite open to question whether the suffering poor in our own country deserve all the support that can be given by the public. Further it is a matter of experience that in the majority of cases, those who give most largely to good objects at home, are those who most liberally give to the cause of Foreign Missions.

I shall look out anxiously for a disclaimer, on your part, of sympathy with the views of the writer of "Passim."

Enclosing my card—I am, yours faithfully,

9th Feb., 1887. "M.D. SUBSCRIBER."

FRACTURED PATELLA.

BRISTOL GENERAL HOSPITAL, *Feb. 12th, 1887.*

DEAR SIR,—A statement appears in your last number to the effect that "it is an unjustifiable operation to cure a fracture of the patella." In answer to this, I may mention that down here, without exception, we wire every fracture of the patella and olecranon within a week of the accident. We have never had any case go wrong, and they are all capable of being shewn with good useful joints (I can produce 8 adults with silver wire in their patella).

One case was most interesting, he had fractured his patella twelve months before, this was wired; again he was admitted the other day with fracture of the same patella, but in a different place, and we found the wire in the seat of the old fracture. He has left the hospital with a perfect joint.—Believe me, yours truly,

W. H. C. NEWNHAM, M.A., M.B. (Cantab.)

A CASE OF EMPYEMA WITH DESTRUCTIVE PNEUMONIA OF LUNG.

Edward W——, age 39, a bank messenger, was admitted under Dr. Carrington, Dec. 30th, for pain in right side and cough. Family history unimportant. Previous history good.

In March, 1886, patient caught a "heavy cold," and has had a slight cough ever since, with shortness of breath, this has increased. About the same time he perspired freely at night. But this passed off before admission. There was no history of hæmoptysis, nor of syphilis.

On Admission—Patient was a fairly nourished man, though rather anæmic. Temp. 98·4.

Chest rather capacious, left side expands better than right. Percussion note at right apex dull, improves lower down and is fairly resonant at nipple; below this there is absolute dulness, extending to three fingers breadths below the margin of the ribs.

The note over left chest is good.

Anscultation.

Tubular breathing at right apex, deficient entry of air over rest of right lung, with consonating râles. Bronchophony and tactile vocal fremitus fairly well marked on this side. No pectoriloquy.

On left side there is supplementary breathing with moist sounds above clavide and in 1st space.

Behind, the right chest is universally dull, with deficient entry of air and moist sounds, and well marked bronchophony.

On left side, chest is dull down to the angle of scapula. Tubular breathing at the apex with moist sounds. There is also bronchophony over the dull area.

The cardiac impulse is in 4th and 5th spaces external to nipple. Sounds normal. Urine normal.

On Jan. 5th, patient's temperature rose to 102°.

On the 13th, it was noted that it remained high, especially at night. Dulness now extended over the whole of the right chest, in front and behind. Patient was sick twice. Temp. 100°.

On the 14th, an exploring needle was passed in, and a syringeful of bloody pus drawn off. The diagnosis of empyema being thus confirmed it was decided to drain the cavity.

Mr. Jacobson kindly saw the patient, and, in the afternoon, an incision was made in the 7th space, just behind the posterior axillary border, and the opening was enlarged by dressing forceps. No pus was found. An exploring needle was inserted in two spaces higher up, and pus drawn off. An incision was then made at this spot, and the opening dilated with dressing forceps, but, again, little if any pus was found. A tube was then inserted into the upper opening, and the wounds were dressed. There was very little hæmorrhage during the operation. The next day he was dressed twice; each time it was found that a good deal of oozing of blood had taken place, so that some small vessels had to be tied. At the third dressing sulphate of iron was applied, which checked any further hæmorrhage. However, patient continued to be constantly sick, and grew gradually weaker till he died on January 19th. The temperature remained at about the same height as before the operation.

At the Autopsy.—The bronchial glands on the left side were found to be much enlarged.

The pleura on the right side was much thickened and adherent on the right side, but a cavity was encysted between the upper and lower lobes of the right lung posteriorly, and the drainage tube lay in the fissure between them. The cavity contained grumous lymph and but very little pus.

On removing the right lung portions were torn away at the base opening up irregular cavities. At one point ulceration had taken place leading to a localised collection of pus in the pleural cavity. There were old pleuritic adhesions over the left lung. The left lung itself was healthy, but the right as regards its lower lobe was in a state of early hepatisation, the portion that had broken down shewed irregular ulcerating walls without any trace of caseation. The tissue was not soft and flucculent like an acute abscess.

The upper lobes of this lung were infiltrated with inflammatory products.

Remarks by Dr. Carrington.

The case has most interesting clinical and pathological bearings.

In the first place it illustrates the difficulty in the diagnosis of pleuritic effusion, for although the case was brought to the test of the aspirating syringe and pus withdrawn, little or none was evacuated at the time of the operation, in spite of the fact that the cavity was successfully opened. No doubt the thickened pleura was a potent factor in causing the simulation of the signs of pleuritic effusion.

On the pathological side—had there been any fœtor; on account of the destruction being limited to the right lower lobe, one would not have hesitated to have diagnosed gangrene of the lung; this, however, was entirely absent during life and after death.

The lesion was localised practically in the right base, and appeared to be a pneumonia which, instead of resolving, had undergone destructive changes, and had broken down into cavities. It is noteworthy that no tubercle was found in any part of the body.

The ending of acute pneumonia is usually favorable, and therefore the present case is of importance; but it may be of interest to state that my experience whilst I was attached to the Seamen's Hospital was quite the contrary and I was quite familiar with case of acute pneumonia which instead of clearing up underwent destructive changes with cavitation, and this entirely apart from tubercle. My impression was that the continual change from warmth to cold, the mal-hygiene of the forecastle, and that of the shore was a potent cause of seamen being unable to stand acute disease.

Hospital News.

LIST OF INTERESTING MEDICAL CASES IN WARDS.

—	John	Osteosarcoma growing from ilium.
9	"	Anæmia with diffused systolic bruit and thrill.
18	Miriam	Cerebral tumour.
25	"	Jaundice of obscure origin.
28	"	Multiple neuritis (alcoholic).
31	,	Multiple neuritis (alcoholic).
24	Philip	Growth in mediastinum and enlarged liver.
2	"	Hodgkin's disease.
14	Mary	Carcinoma of liver.
16	"	Alcoholic paraplegia.
24	"	Hemi-hyperæsthesia and hyperalgesia.
37	"	Acute mania following chorea.
41	Mary	Peculiar case of Palsy after chorea and sore throat.
47	"	Monoplegia—right arm.
11	Stephen	Abdominal tumour.
10	"	Ascites and large liver in a boy.
17	"	Aneurysm.
26	"	Frequent passage of gall-stones.
27 & 36	"	Diabetes.

LIST OF INTERESTING SURGICAL CASES IN WARDS.

16	Job	Rectal and urethral stricture.
19	"	Pulpy knee.
5	"	Femoral aneurysm.
20	"	Osteitis after compound fracture.
12	Lazarus	Abscess in abdominal wall.
3	"	Soft growth over sacro-iliac synchondrosis.
11	Naaman	Divided ulnar nerve.
2	"	Osteo-arthritis of jaw—excision of both sides.
19	"	Obscure intestinal obstruction.
16	Luke	Epithelioma of cheek and jaw—removal.
20	Lydia	Abdominal tumour.
2	"	Thyroid tumour.
20	Charity	Tumour in neck.
18	Martha	Growth in Axilla.
Cot	"	Mastoid abscess.

"REFERRED."

Under the above title I will recount a failure. No one will behold my blushes behind this anonymous article, and I am sure I can count on the sympathy of some of my readers who have experienced a like misfortune at some period of their career. I had decided to go in for an examination, my "first college." The date loomed in the distance. I consulted the almanac frequently. Only "ten weeks," then "only eight," and at length "only a week." I cudgelled my "brain," I figuratively gnawed my "bones," I exercised my "muscles," I endeavoured to soothe my "nerves." I sent in my schedule and a blessing in the shape of a "fee." As the day approached I grew irritable and anxious. The eve of my "written" came. I did no work but went to bed early. One often hears of unfortunate mental sufferers "tossing upon their bed." I think with me it was a sort of physical and mental "pitch and toss!" I seemed to career all over the bed.

Anatomy haunted me; physiology pursued me. My sheet became the "peritoneum," the bolster the "transverse colon," and the hot-water bottle (it was cold then)

the "rectum!":—my imagination did not stop here: it took fearful flights. I appeared to be having a bath in "gastric juice." Twelve "bare-ribbed skeletons" hovered round me and demanded in sepulchral tones the articulations of the "scaphoid" bone! Then I found myself in the dissecting room, trying to find the "otic ganglon" with a paper cutter. The perspiration poured down me as I sought in vain. A horrid rattling warned me that I was pursued by the bony twelve, when I awoke to find my dutiful landlady rapping at the door and saying it was "eight o'clock."

Later in the day I formed one of the crowd assembled at the College, and was duly admitted to the examination. I will pass over the "papers" and how I answered the questions, and simply speak about my "Viva," which came on two days later. I felt like a criminal going to execution as I ascended the wide staircase leading to the examination room on hearing my number shouted out. I made an intemperate bow to the examiner, who forthwith began to torture me. I became conscious of the presence of one of the junior members of the Staff of my own hospital, marking down my answers to questions. Nervously I glanced at him as I plunged into error and called arteries nerves and vice versa. My examiner began to lose his temper I could see. He became sarcastic, and holding up a "femur" asked me with withering scorn, what bone it was. I lapsed into a temporary state of dotage and was dumb! The marker looked horrified and fled to another table. At that moment the bell rang and I felt morally kicked across the room to the physiology table. Here I fared better. I suppose a reaction set in, for I answered some questions creditably and even evoked a smile of approval from the kindly grey-headed old gentleman whom I began to think the nicest person I had ever met. At last the bell again rang and I was released from purgatory. Oh, the relief I felt; how can I describe it? But I wont try. I knew what to expect in anatomy. I had faint hopes of physiology. I fled away from the place and wandered about the Doré gallery. What a blissful change it was from the torture I had just gone through! I sat dreaming over the great artist's sublime creations until I was suddenly reminded, by the striking of a clock, of the fact that the "list" must be out. I rushed back to behold the result. I was "through" in physiology, but in anatomy "referred!" However, I felt thankful for small mercies, and next time my efforts were crowned with success.

"VIC."

Obituary Notice.

HERBERT HOWARD, M.R.C.S., L.R.C.P., of New Beckenham, Norfolk, died Feb. 6th, æt 26.

CHARLES BRADDON, M.R.C.S., L.S.A., of Guy's, St. Thomas', and Webb Street Schools, died Feb. 5th, at his residence, Upton-on-Severn, suddenly.

We record with sadness two vacancies made in the ranks of old Guy's men since our last issue. Mr. HOWARD entered in 1879, and was a popular and accomplished friend of many of us; one of the many young victims of that dread disease Diphtheria.

Mr. BRADDON entered at the United Hospitals in 1836, and was one of the few practitioners remaining who have studied under GRAINGER, at the Webb Street School of Anatomy. He was, as Secretary of the Webb Street Medical Society, presented with a Testimonial, for his services to that Institution, which, in its words, he completely re-modelled; and among the Presidents, of which at that time were J. T. COOPER, FRANCIS RAMSBOTHAM, JAMES RISDON BENNETT, GEORGE PILCHER, BARRON, and MARSHALL HALL. Entering early into country practice, Mr. BRADDON devoted much of his time to the improvement of his adopted town, which he introduced gas-lighting into, of which he superintended the paving and draining; founder of the Odd Fellows Lodge at Upton-on-Severn; and of a Rifle Corps at the time of the Volunteer movement, of which he became Captain; a Ruling Councillor of the Primrose League; Chairman of the Conservative Association of South Worcestershire; a frequent and vigorous platform speaker; he was highly valued in the district for his public services, receiving for them many valuable testimonials.

The whole of the neighbourhood testified their sorrow at his loss, no fewer than six hundred representatives of all classes, assisting at his funeral, on the 12th inst. He leaves two, among many, sons in the ranks of our profession.

Sport.

INTER-HOSPITAL ASSOCIATION CUP TIE.

GUY'S *v.* LONDON.—This match took place at North Dulwich, on Friday, February 4th, and resulted in an easy victory for Guy's by 5 goals to 0. The game needs very little description. We won the choice of goals, Sisson starting the ball for London at 2.30, and for the first two or three minutes the game was in our half. F. H. Brown then got away, and managed to get a shot at our opponents' goal, but failed to score; after about 20 minutes play he scored our first goal; Winslow soon afterwards added a second, and about 5 minutes before half-time A. T. Brown scored a third. After change of ends we still had matters all our own way. To F. H. Brown fell the fourth goal, and the fifth Jones scored from a very good shot. During the last 5 minutes London worked up hard, and Major, for London, managed to get by our backs and had a shot at our goal, but the ball fell wide of its mark, this being the only time they had a chance of scoring. When time was called Guy's were left winners as above stated.

GUY'S.—H. Bolus (Goal); A. C. Roberts (Capt.), G. Mitchell (Backs); E. T. Mitchell, S. Woodhams, C. Roberts (Half-backs); F. H. Brown, E. Sharman, A. T. Brown, W. Winslow, T. Sturges-Jones (Forwards).

LONDON.—F. Godfrey (Goal); H. Sisson, A. B. Davies (Backs); K. W. Poole (Capt.), T. Waite, H. Sturge (Half-backs); A. Major, T. Kyffin, F. Scott, G. Simpson, W. Grenfell (Forwards).

If we really mean to keep the Association Cup for another year we must show a very great improvement on our play, as this match was not won by our good form but through a want of knowledge of the game by our opponents, whose team largely consisted of Rugby men.

Bolus in goal did not touch the ball from start to finish. The backs did not have much work, and the little kicking they did was rather wild. The half-backs were only fair, except E. T. Mitchell, who played well throughout the whole game. The forwards were all to pieces, (was this owing to the absence of their Captain? let's hope so) there was no combination in their play, no passing whatever, and the shooting at goal very bad indeed. Sharman and Jones did next to nothing the whole game; neither of the Browns played up to their usual form, and Winslow in the centre was far too slow.

There is only one excuse for the bad play, and that is we were playing against a team who showed very little knowledge of the Association Rules, but, still that is not a sufficient reason for the shockingly bad exhibition of Friday, February 4th.

KENSINGTON *v.* GUY'S.—This match was played on Saturday, February 5th, at Wormwood Scrubbs, and resulted in a win for Kensington by two tries to nil. We were not playing our full strength, and were, moreover, rather slack. The chief result of the match was to make the Committee substitute Russell for Bryant as half-back in the match *v.* U. C. H.

2ND ROUND INTER-HOSPITAL CUP TIES.

GUY'S HOSPITAL *v.* UNIVERSITY COLLEGE HOSPITAL.—This match was played at Richmond, on Tuesday, February 8th, and resulted in a victory for us. The ground, though hard, was in a very fair condition, and there was a slight wind blowing up the ground from the lower goal.

University College won the toss and chose the lower goal. Russell kicked off; the ball was well returned by Pridmore; another drop by Prime sent it into touch near the half-way post. The forwards now took the ball into our opponents 25, and Cuff, obtaining the ball, made a short run. Next, Davies got away but was well tackled by Russell. This was succeeded by a rush of the enemy's forwards which took the ball into our 25, and then a drop by Faichnie caused us to touch down.

The kick from the 25 was well followed up, and after a good pass from Russell to Cuff, and short runs by the latter, University College touched down in self defence. They dropped out, and followed up the ball well. After some scrimmaging Russell passed the ball to Rygate, who made a short run, but failed to pass before he was collared. Then Pridmore, obtaining the ball, dropped it into touch. Soon afterwards a kick by Prime sent the ball into touch in their 25. Next, a bad pass by one of our team enabled our opponents to gain some ground. After some more scrimmaging Rygate regained some of the lost ground. More scrimmaging then ensued, after which Cuff, having the ball well passed to him by Russell, tried to drop a goal, but failed. University College touched down. The drop out was charged down and the ball went into touch in their 25. They next rushed the ball up into our 25, but Wallis relieved our line by a short run and kick into touch; shortly after Cuff gained some more ground. Then Davies got away, but fell down ignominiously; Cuff picked up the ball very neatly, and made a very good run, but was stopped by the back in their 25. Faichnie, however, relieved his goal by a very good drop, which went into touch near the half-way post. Soon afterwards, another kick by Pridmore, sent the ball into touch in our 25.

Some good play by Steele and Rygate regained a little of the lost ground, but Russell endangered our goal by a bad pass in our 25. Wallis rushed up to save and came into collision with Stevenson (U. C. H. half-back) who was trying to pick up the ball, the result being slight concussion for the latter. After a short interval the game was restarted, Stevenson playing as supernumerary back. Davies obtained the ball but was well tackled by Prime. Our forwards next, by a good rush, took the ball into the enemy's territory. One of their three-quarters made a good kick, but the ball was well returned by Wallis, and a scrimmage was formed in their 25. Next a good pass by Fawcett gave the ball to Cuff, who got in. Prime took the kick but did not succeed in scoring a goal. University College dropped out, and a scrimmage was formed near the middle of the ground. Some good play by their forwards now rushed the ball up, but Russell saved us by falling on it. The game still remained in our 25 when half-time was called.

On resuming they kicked off from half-way, the ball was returned into touch by Rygate, they tried to rush it down but were well stopped by Russell. Next Rygate got away and passed to Cuff, but the latter failed to hold the ball, and Davies obtaining it sent it into touch near half-way post. Some good play by Russell, Rygate and Raw now took the ball on, and Fripp, after a short but useful run, passed it very neatly to Allport, who obtained a try. Prime took the kick, and although he made a good attempt was unsuccessful.

They dropped out from the 25, and after a little kicking had been indulged in by the backs on either side, Prime caught the ball and made his mark. The kick resulted in its going into touch in their 25. Next one of their backs got away but was well collared by Cuff. The U. C. H. forwards now made a rush, but their efforts were neutralised by a good punt into touch by Wallis. Our forwards then worked the ball up again, and soon Allport

managed to dribble the ball along the touch line past their their their three-quarters. Steele picked it up and scored another try.

The place by Prime was again unsuccessful.

The ball was dropped out and well returned by Cuff, but a kick by Pridmore sent it into touch. Next, a good piece of combined play by our forwards enabled Prime to obtain a try behind the posts. The place kick (by Prime) was successful.

U. C. H. kicked off from hall-way, the ball was well returned by Russell, and well followed up by the forwards, the result being that U. C. H. were obliged to touch down. They dropped out again, but we soon took the ball into their quarters, and some more good passing resulted in Prime's getting behind again, he was, however, tackled before be touched the ball down, and a maul ensued, which ended in a touch down for them. They dropped out and followed up well, but Wallis saved us by a good kick. We worked the ball up again and they were again obliged to touch down in self defence. The drop out was well returned by Cuff, and scrimmaging ensued in their quarters. Soon the ball became loose, and a kick by Pridmore enabled Prime to make his mark.

Next, Cuff got away, but was tackled by their back. Our opponents now made a last effort to score, and rushed the ball down into our 25. Our forwards, however, rallied, and by some very good passing scored another try between the posts. Prime kicked another goal.

The kick off was well returned, but Faichnie let the ball go between his legs, and another rush by our forwards scored another try; the place kick was unsuccessful. Directly afterwards "no side" was called. We were thus left victors by 2 goals, 4 tries, and 4 touchdowns (94 points) to one touchdown (1 point).

On the whole, our play showed a marked improvement on that in our match against the London Hospital; the men were in better training, though we do not think that our team is yet fit enough to win a hardly contested match.

The passing and combined play of our forwards was the most noticeable feature of the match, but at the same time it must be remembered that we were playing against a demoralised team, and that two of our tries at least would have been disallowed had our opponents appealed for "thrown forward."

The half-way backs both played well, and we think that Russell quite justified his selection, they passed on the whole, with good judgment; there was one glaring exception to this when a *bad pass in our 25* nearly let them in.

Rygate at middle three-quarter was most useful in stopping rushes and tackling. We think, however, that we might have done better had he passed to the wing three-quarters more often instead of running through their forwards. Prime played a faultless game throughout, and deserves especial praise for his plucky tackling. Cuff's picking up was especially noticeable, but he did not always succeed in taking the ball when it was passed to him.

The forwards all played well, and we were very pleased to see that they followed up well; the passing was at times really good. Fripp and Allport deserve special mention. One defect was noticeable, *i.e.*, that it took our team about a quarter of an hour to realise that they were playing a Cup Tie. We must improve on this in the future, as a team of equal or inferior merit might easily score against us in the first ten minutes and then keep us out afterwards.

Our team was as follows:—S. S. Wallis (back); C. J. Prime, C. D. H. Rygate, and H. E. Cuff (three-quarters); F. M. Russell (capt.) and H. Steele (half-backs); A. D. Fripp, T. O. Raw, A. Allport, J. Fawcett, C. H. Swayne, H. Joslin, C. J. Roberts, N. Instone, — Rogers.

Rygate took Jordan's place as middle three-quarter, and C. J. Roberts was promoted to the vacancy in the forward team.

Feb. 10. St. Bartholomew's beat Charing Cross, 2 goals, 3 tries to nil.

Feb. 11. St. Thomas' drew London (the former touched down once.)

The draw for the 3rd Round resulted as follows:—

Feb. 24. London to play Middlesex.

Feb. 25. Guy's to play St. Thomas.

St. Bartholomew's a bye.

LONDON SCOTTISH *v.* GUY'S.—This match was played on Saturday, February 12th, at Lee. Owing to temporary disablement of some members of the team, we were obliged to enlist the services of some of the "Old Crocks." Our opponents were playing their full strength outside, but were not quite so strong as usual forward. The game resulted in a win for our opponents by two dropped goals and a try to nil. Before half-time we played downhill against the wind, and the game was mostly in our quarters. Lindsay dropped a very neat goal. After change of ends our opponents still pressed us, and scored another dropped goal (Lindsay) and a try. After this, however, we managed to keep the ball in their 25. After half-time we had to play one short, as Cuff hurt his knee. Our team consisted of—S. S. Wallis (back); H. Cuff, H. V. Hickman and F. M. Russell, capt., (three-quarters); Budge and G. Steele (half); A. Allport, A. D. Fripp, Rogers, H. Joslin, H. B. Marriott, H. Nisbet, H. Whyte, R. M. H. Randell and T. O. Raw (forwards).

NOTICE TO CORRESPONDENTS.

The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Guy's Hospital Gazette,

MARCH 5, 1887.

TWO CASES OF ACUTE CELLULITIS OF THE SCROTUM WITH GANGRENE.

J. B., æt. 25, was admitted into Samaritan Ward on the morning of January 18th, 1887, giving the following history :—

He had been quite well until the 16th, which was a Sunday, and on which day he visited his father in Lazarus Ward, suffering from acute periostitis of the tibia.

He had always been a healthy man except for occasional attacks of gonorrhœa. On the night of the 13th he had sexual intercourse with a woman of the town. On the morning of the 16th he noticed a lump in the left groin, which, however, gave him no pain. On his return home, however, he shivered and became drowsy. He went to bed and remained there till Monday morning.

He found then, on awaking, that the lump in his groin was larger and his scrotum was swollen red and painful. On the Tuesday (18th), the day of admission, he found his scrotum much more swollen, and, in addition, there was a white patch on the front of it.

He then came to the Hospital and was admitted.

On admission scrotum largely swollen, red, but not tense.

There is a gangrenous patch, 2¼ by 2 inches, just where the penis rests on the scrotum. Gangrenous skin white and wet, no line of demarcation.

No. 9. Catheter passed easily into bladder. Can pass his urine himself without trouble. Diarrhœa badly since Sunday. Tongue very foul. In the course of the afternoon an erythematous blush showed itself over the upper ⅓ of the left thigh and left inguinal region, the edge of which redness, though defined well, was not raised above the surrounding skin. T. 103.

19th. Gangrene extended transversely for 1¾ inches, and a good line of demarcation appeared. No swelling of perinæum or penis.

20th. No further extension of gangrene, and the red blush has disappeared. Three incisions made into posterior part of scrotum and some pus let out; deeper structures found sloughing.

22nd. Sloughs removed.

24th. Bubo opened with great relief; wound in part of scrotum healing well; testis not exposed, but everything down to, and in some places including dartos, had sloughed.

Since then the patient's recovery has been rapid.

There are several points of interest.

1st. When seen in the surgery it reminded every one who saw it of extravasation of urine, inasmuch as three house surgeons coming to him one after another, at once asked whether he passed his water freely. This point was dismissed by passing a catheter.

2nd. If this were a case of acute cellulitis of scrotum why were all the tissues so lax, and why was the spread of the disease so limited?

Cases of acute cellulitis with gangrene are sometimes seen with this rapid history. Mr. Symonds recalled one in a young man of the same age, and my colleague publishes another in a child side by side with the present case. It would seem to be an affection analogous to cancrum oris or noma vulvæ.

3rd. I myself believe the case to be one of sloughing phagedaena, originating from the impure intercourse on the Thursday. Mr. Henry Lee. in Holmes' system, describes at page 329, edition 3rd, a disease presenting point for point almost the same characters as the disease of this patient.

These points are,—time after infection three days, establishment of a patch of gangrene, and after the appearance of a line of demarcation, the slough being thrown off, and recovery taking place by granulation.

He also says that "the opposed surfaces of the labia or nates appear to affect each other by contact and when lymphatic absorption accompanies the gangrene the destructive action is sure to spread to the inguinal glands and surrounding tissue and skin." All this appears to me who have watched the case to be exactly what would have taken place had not the disease been cut short by prompt and efficient treatment.

S. E. PRALL.

(To be continued.)

SENILE SPASMODIC MOVEMENTS.

Case.—Mrs. A., æt 93. Always been healthy until last two years, since when she has been practically confined to her bed, although able to get in and out for toilet purposes. When I was called to see her, she was lying on her back, "rambling" according to the wont of old people, and groaning alternately; but what I am now drawing attention to were slight convulsive movements which affected her every few minutes, beginning apparently with a sudden contraction in the muscles of the back, so that she was jerked up on her bed, and spreading to the flexor sets of muscles of either extremity. They were quick, frequent and painless, and came on in groups of two or three twitches at intervals of a few minutes. She complained of a pain præcordially, had rather hard arteries, and a weak irregular pulse. Her pupils and face-colour did not vary with the twitches. Occasionally the finger-rubbing form of athetosis, and picking at the clothes were noticeable as well She professed to feel all right, and her general condition was not weaker than to be expected at her age.

I ordered her some *Mist. Sp. Vini Gallici*, which considerably improved her; but the twitches continue whenever she is disturbed in bed, or excited by the advent of a stranger. To what class of nervous phenomena is this to be relegated? She never had any such affection before, which precludes the use of the word "Histrionic." Such spasms are not uncommon, I believe, in old people, but have not received much attention. To me they seem to be a sort of senile *Chorea*.

W. LEONARD BRADDON.

A CASE OF PARALYSIS.

Under Care of Dr. Taylor and Dr. Carrington.
Notes from the Report by T. O. Raw.

A. M., æt. 15. Mary No. 41.

Admitted for chorea (third attack). It began six weeks ago, attacking in order her right arm, face and right leg.

On admission.—Girl, thin, dark-haired, anæmic, lying in bed, restlessly tossing her head from side to side, and constantly opening and closing her eyes and mouth. Speaks plainly; answers questions slowly, her speech being interrupted by convulsive movements of her eyes and of the corners of her mouth. The ordinary purposeless movements of chorea affect her right arm and right side of face, the left arm and left side of face being only slightly affected. She can easily seize hold of anything with the left hand, but with her right hand only after a series of irregular jerks. When lying in bed, the legs fairly quiet, but the right foot moves about a little. Breathing and swallowing are easy. No noticeable anæsthesia nor loss of power nor wasting in any parts of the limbs, although the patient is thin generally. Plantar reflexes and knee jerks present; no ankle clonus.

Patient was treated with *Arsenic* in increasing doses as follows:—

Nov. 11	Liq. Arsenicalis	♏ 3.	t. d. s.
15	,,	♏ 5.	,,
22	,,	♏ 7.	,,
30	,,	♏ 10.	,,
Dec. 3	,,	♏ 12.	,,
14	,,	♏ 15.	,,
Jan. 10	Liq. Arsenicalis stopped.		

Progress of Case:—

Nov. 18. Patient much better, although she still jerks about her right arm and hand.

Dec. 3. Patient better. Can hold out right hand without its making choreic jerks, but when doing so, the wrist is dropped and the fingers extended.

Dec. 17. Patient gets up after dinner and walks about without any difficulty. No convulsive movements of hands or legs.

Jan. 2. Patient complained to-day of slight cough and sore throat, and pain near angles of lower jaw, with general malaise. Throat rather injected, uvula and tonsils slightly swollen. Slight pyrexia. No membranous patches on fauces. A little bronchitis.

Ordered to stay in bed.

Gargle and cough mixture ordered.

Arsenic continued.

Jan. 6. Throat better.

Jan. 8. Patient complains to-day of numbness and feeling of pins and needles in her hands, feet and legs (especially the last). Her grasp is weak, especially with the right hand; her legs are also weak in their movements.

Jan. 11-14. The pain and numbness in hands and legs have continued.

Her right hand is almost useless. When asked to grasp one's hand, she attempts to do so with the thumb and first two fingers, the others being feebly flexed on the palm. Left hand is rather stronger.

Her forearms and legs are tender. To grasp them even gently causes her pain. Attempts to get ankle down cause much pain.

Knee jerks and plantar reflexes absent.

Abdominal and epigastric reflexes present.

No loss of sensibility to touch in arms.

Some loss of sensibility to touch (by piece of paper) in both legs and feet, especially the right; this varies in amount.

She is unable to stand up; placed in a chair she slips off. She has wrist-drops and foot-drops. (N.B. On January 1st she could walk.) Although the patient is thin, yet the calves of her legs and backs of forearms and interosseous spaces of hands seem more than proportionally wasted. Her fingers are extended and apart, slight tendency to clawed hand. She is unable to extend the wrists, and can only feebly hold out the arm for a short time. No facial palsy, no mental weakness, no palsy of soft palate, no difficulty in swallowing, no nasal twang of voice, no chronic jerkings, no vomiting nor diarrhœa, no incontinence of urine or fæces; sleeps and eats well.

Jan. 20. Condition much the same.

Gets up every evening, but cannot stand. Can just manage to sit in chair helplessly. Cannot extend hands on forearm, nor fingers on the metacarpus. Can pronate and supinate the hand. Hardly any power over right thumb. In bed, she lies with legs powerless, and feet dropped and adducted. Slight anæsthesia of fingers and thumbs.

Feb. 1. Is slowly improving.

Can extend wrists, but cannot hold the hands out for many seconds. Cannot flex feet or legs.

Muscles of lower extremities tested by electricity. Leg muscles gave no reaction to faradism, though the current caused great pain.

With galvanism C. C. C. no reaction. A. C. C. strong current, no reaction.

Upper extremities not tested, owing to the pain caused.

Feb. 14. Patient is a little stronger.

Cannot stand up yet.

Grasp of hands is improving.

Tenderness of muscles and anæsthesia and absence of reflexes much the same. General condition better. Appetite good. Palms of hands perspire rather freely.

What is the cause of the paralysis?

Several suggestions present themselves, but they are all more or less open to objections.

1. *Paralysis following Chorea.*—Paralysis following chorea is usually in proportion to the chorea and affects the limbs that were most affected by it; thus a chorea mainly unilateral may be followed by a hemiplegia. But this was not a severe case of chorea, and although not entirely unilateral (for none are) was mainly right-sided. Yet the palsy is bilateral, although certainly the right hand, which was most affected by the chorea, is most involved by the paralysis, and the left leg, which was not choreic, is as weak as the right one. There is no mental weakness such as is usually associated with so extensive a choreic palsy as this. Nor did the chorea gradually merge into weakness, as usually happens in such cases, but the paralysis appeared to come on as a distinct ailment, being preceded by tingling, numbness, and other paræsthesiæ.

2. *Diphtheritic Palsy.*—In all probability the sore throat was not diphtheritic, no other cases of diphtheria were in the ward at the time, nor was there any evidence to suggest that this was of that nature.

Nor does the palsy itself resemble that which may follow diphtheria, although in the latter knee jerks may be absent, anæsthesia and paraesthesia may occur, and electrical reactions may be lost, thus far resembling our case. Paralysis may rarely follow very rapidly after the onset of diphtheria, but in such unusually rapid cases the palsy is slight generally being limited to the soft palate. The entire absence of palatal and ocular palsy, the rapid onset and nonprogressive character, preclude diphtheritic palsy, which is usually so transient and patchy.

3. Acute or subacute anterior poliomyelitis is not likely to be the cause. The age of the patient and the presence of anæsthesia are against any affection of the anterior cornua only.

4. *Hysterical Palsy* can be eliminated here. There is no other evidence of hysteria, and the wasting and loss of power and reflexes are much more marked than the sensory disturbances. This relationship is usually reversed in functional neuroses.

5. *Arsenical Paralysis*, due perhaps to the arsenic causing a peripheral neuritis.

Objections.

There was no other evidence of the arsenic producing physiological effects; no irritation of eyes, nor alimentary canal.

The dose was within the usual limits, as given to children for chorea. Most of the cases of arsenical palsy have occurred, not as the result of continued small doses of arsenic used as a medicine, but of one poisonous dose.

Dana, it is true, gives a case of pseudo-tabes following arsenic used as a medicine for gastralgia, but the dose then given was half an ounce of liq. arsenicalis, t.d.s.

Dana describes two forms of arsenical paralysis (either of which may be derived from use of wall-papers).

1. Resembles locomotor ataxy.

2. An ordinary mixed motor and sensory paralysis, the motor troubles and atrophy being more marked than the sensory disturbances.

The case of paralysis in Mary Ward rather resembles the latter group.

G. E. HALSTEAD.

Green Extracts.

THE NEW CHEMISTRY.

(*The Chemistry of the Sun*: by J. Norman Lockyer, F.R.S.; London, 1887.)

As we are not among those superior persons who affect to despise the intellectual range of "the average medical student," we shall make no apology for introducing a few notes on a subject outside the ordinary hospital curriculum, more especially as it seems not impossible that even solar chemistry may throw light on some of the deepest problems of the science of life. If plants are able to decompose so stable a compound as carbon dioxide, is it safe to assume *à priori* that the so-called "elements" (now shown to be not strictly elementary) go through their manifold evolutions in the human body unchanged? But, before proceeding to give an abstract of Mr. Norman Lockyer's new book, we may be allowed to make a few remarks in the way of criticism. The method chosen by Mr. Lockyer is the historical one, commencing with the first discovery of the properties of the prism and including the great work of the last twenty years. Now this historical or inductive method is necessarily the process of research, but requires considerable modification when used in exposition. It flatters a reader's self-esteem to tell him the facts and leave him to draw the conclusions for himself, and doubtless there is an advantage in making people think, but a certain sacrifice of clearness is the result. In point of fact, Mr. Lockyer nowhere definitely states what his opinions are. He hints at them, leads up to them, but declines to formulate them. Hence, although the book is evidently intended for popular reading, very careful attention is required in order to follow the argument successfully, but on the whole the fulness of explanation in details and the large number of excellent illustrations make it perfectly intelligible by any one who is sufficiently interested in the subject to take the trouble of thinking. It is often said that scientific men write bad English. If this be the rule, Mr. Lockyer is an exception, though silly colloquialisms like "with a vengeance" might with advantage be omitted from a book written for grown-up persons. It seems odd also to speak (as Mr. Lockyer frequently does) of the spectroscope giving "no uncertain sound"—unless, indeed, we are to associate the spectrum-scale with the music of the spheres. But we have no wish to carp at trifles, and will now go on to give an outline of *The Chemistry of the Sun*.

The general principles of spectrum-analysis are well known. A heated substance gives out light, which may be decomposed by passage through a prism or diffraction-grating; and the arrangement of colours, or spectrum, so obtained is characteristic of the substance examined and may be used to identify it. If composite light be passed through any transparent medium of comparatively low temperature, the medium will absorb all rays corresponding in wave-length with those it would itself emit when heated. Generally speaking, the spectrum given by a heated solid or liquid is continuous from end to end; while the spectrum of an incandescent gas consists of a few bright lines separated by tracts of darkness.

Now the solar spectrum (obtained by passing sunlight through a fine slit and then through a prism or grating) is, on the whole, a continuous spectrum; but it is marked at intervals by dark lines, named the Fraunhofer lines after their discoverer, who mapped nearly 600 of them; and, on comparing the solar spectrum with the spectra of substances known to terrestrial chemists, there is found in many cases to be very close correspondence in position and intensity between the dark lines of the sun and the bright lines given out by incandescent metals. The natural inference is that the sun consists of a central solid nucleus giving a continuous spectrum, surrounded by an atmosphere which absorbs certain rays, this atmosphere being thereby shown to contain in an incandescent state the elements whose characteristic lines correspond to the Fraunhofer lines. In this way it has been demonstrated that hydrogen, magnesium, sodium, calcium, iron and many other metals exist as vapour in the solar atmosphere.

So far enquiry had led us about fifty years ago. But gradually it became evident that corrections were necessary in these general statements, the correspondence between laboratory experiments and astronomical observations not being so close as was at first supposed. Mr. Lockyer has been working with a spectrum more than a hundred yards long, and he finds that the lines very often do not agree absolutely in either thickness or position. Sometimes, for instance, the hydrogen line F, which is very constant in the solar spectrum, is shifted slightly to one or other side of its normal position. Over sun-spots the dark absorption lines are frequently found thickened. With regard to elements having several lines in their spectrum, it occasionally happens that some lines are shifted toward the red end and others toward the blue end of the spectrum, or some may be thicker and others thinner than normal. On many of these points much light is thrown by experiments. When a compound body, such as a salt of calcium, is heated to the lowest temperature at which it will give out light, we obtain a spectrum, which is indeed the spectrum of the compound. Further heating adds to this some of the lines of metallic calcium; and, as the temperature rises, the spectrum of the compound fades away, and the complete calcium spectrum is left, for the heat has destroyed the compound; while in the intermediate stages we have the spectra of both the elements and the compound. Further, if we heat the metallic calcium still more, the spectrum changes again. At a low temperature the spectrum of calcium is represented mainly by a red line, there being no lines in the blue. The heat of a Bunsen burner adds to this a blue line. In the electric arc the red line becomes thinner, the blue line thicker, and two new lines (H and K) appear in the violet. In the spark produced by an induction coil the red line is not seen, the blue line thins again, and the two violet lines are most prominent. The general solar spectrum is practically identical with that of the spark; but in the prominences, which are hotter than the general surface of the sun, both red and blue lines are absent, while the two violet lines (which have been gradually becoming more marked with every rise of temperature) are very strong indeed.

Now what is the meaning of this progressive change in the calcium spectrum? Mr. Lockyer says it means the same as the gradual change of spectrum when calcium chloride is heated. He believes that calcium (and the same is true of the other "elements") is a compound, which by means of heat can be gradually split up into more and more simple molecular forms, these uniting again as the temperature falls to produce metallic calcium as we know it. He argues that we are not justified in supposing dissociation by heat to cease at a certain point merely because we are unable to go beyond that point by ordinary chemical means. On the contrary, the law of continuity commands us to believe that high temperatures continue the work of dissociation begun by moderate heating. Unhappily we cannot perform the ordinary chemical experiments at the temperature of the electric arc; but if the so-called "elements" are really undecomposable, it is difficult to see any reason why their spectra should vary with the temperature employed. Obviously this reasoning at once destroys our right to say that calcium, iron and the rest exist *as such* in the sun. All we are justified in asserting is that their constituents are there.

Let us now turn to another of the discrepancies mentioned above, namely, the slight shifting of certain metallic lines toward one end of the spectrum. This is explained by remembering an analogy in the case of sound. If a sounding body is moving rapidly, it will catch up the vibrations emitted in front and shorten their wave-length (*i.e.*, the pitch of the sound will be raised), while behind the moving body the wave-length will be increased and the pitch lowered. Similarly, if a mass of incandescent sodium is moving towards us, the wave-length of the light we receive is decreased, the light is therefore more refrangible, and the sodium line is found shifted toward the violet end of the spectrum. By measuring the displacement it is possible to calculate the velocity with which the luminous body is approaching or receding. But it occasionally happens (with regard to iron, for instance) that some of the characteristic lines are displaced towards the blue and others towards the red end of the spectrum. It is difficult to suppose that a mass of iron can be moving simultaneously both towards and away from us; but the difficulty vanishes if we admit that in the sun iron is decomposed into several different substances giving different lines, and that some of these at the moment of observation are coming toward us, while others are going away.

Another interesting point has reference to lines which are common to the spectra of different metals. Of course, in some cases the supposed coincidence has been due to the feeble dispersion employed, and has been disproved afterwards by the use of higher powers. In other cases again the common lines have been produced by one metal existing as an impurity in a specimen of the other. But when both these sources of error have been eliminated, there still remain undoubted instances of lines common to two metallic spectra, just as the calcium lines are found in the high temperature spectra of all the calcium salts. Further, in the spectra of sun-spots and prominences these common lines are found greatly thickened, pointing to increased quantity of the substance they represent. We may presume that in such cases the two metals contain a common base, which is liberated in greater quantity as the temperature rises.

By a different line of research from that followed by Mr. Lockyer, Mr. Crookes thinks he has obtained proof that the metal yttrium contains at least six distinct atoms. Going back over a period of perhaps a thousand million years he pictures to us the solar system as a mass of incandescent gas formed of these and similar primitive atoms uncombined. As the temperature fell, the atoms combined to form the elements as known to chemists, and as some of them perhaps exist in the cooler parts of the sun's atmosphere. Our earth, of course, represents

a later stage still, where comparatively few elements exist in the free state. On the other hand, it is well known that some of the hottest stars show no heavy metals in their spectra, but only the lines of simple permanent gases like hydrogen and nitrogen, together with such metals as calcium, magnesium and sodium. Remembering the infinite variety of organic compounds formed by the union in different proportions of the three bodies, carbon, hydrogen and oxygen, we may imagine (though complete proof is wanting as yet) that our elementary metals are formed by similar combinations of the permanent gases or their constituents.

A very few words must suffice for the more specially solar part of Mr. Lockyer's work. The photosphere, or body of the sun, is an intensely hot mass nearly a million miles in diameter. It is the light from this which gives the continuous spectrum, though it is probably not strictly a solid, but rather a gas existing at such pressure as to possess some of the solid properties. Outside the photosphere is an atmosphere half-a-million miles high, arranged in layers, the innermost being the hottest and containing elementary bodies unknown to us. Then come hydrogen, magnesium, and sodium (or their components); and the outermost or coolest layers possibly contain clouds formed of terrestrial metals in the liquid or even solid state. Lastly, outside all this is the corona, whatever that may be. A spot is produced by a downrush of cool vapour towards the photosphere, where it is dissociated into more elementary substances. Prominences are up-rushes of vapour thrown up from the neighbourhood of the photosphere through the sun's atmosphere with a velocity sometimes as great as 250 miles a second, and reaching a height of 70,000 miles or more. It is noteworthy that these regions of most intense activity always show a large number of unknown lines in the spectroscope, dissociation being carried so far that we are unable to recognise its results.

W. A. S.

CHARITY MISGUIDED.

[In answer to Correspondents.]

The comparatively voluminous correspondence evoked by a phrase of two words in a section of Passim in a previous number, is, taken by itself, a fact significant enough. The unquestionability of the tenets referred to is admirably shown by the necessity of appealing to so many authorities to support them! But this is not the place, nor will I trench on space so much as would be needed, for the discussion of first principles, more than to say that, in the first place, that the tenets taught to savage nations *are* questionable is evidenced sufficiently by the fact that there are hardly any two thinking people agreed upon the same tenets at home; nor, in the second place, can anyone need more evidence of the fact that tenets, and not elementary or fundamental principles of Christianity only, are sought to be taught to the aforesaid "savages," than this, that these missions are carried on under the auspices of many different sects (Jesuits, Romans, Greeks or Protestants), who as strictly inculcate their own views, adhere to their own rites, and maintain their special altars, whenever possible, abroad, as at home. But while I have said this much merely to vindicate the actual, and not only logical, accuracy of the phrase as representing the things that are, I more especially wish to point out how entirely the letter of our first correspondent is beside the question. My implication, writing in Passim, was that it was useless, and, in view of the distress and misery at home, worse than useless, to spend money on teaching tenets (and religious codes) to heathen nations. The inference our correspondent has drawn is different: he deliberately mis-translates "questionable tenets" into "principles of Christianity," and even while unnecessarily attempting to vindicate the utility of these, which I have *not* attacked, he confuses the whole issue by confounding the dissemination of religious ideas with the spreading of civilisation. So far as civilisation may be synonymous with Christianity, I will not cast doubts, even though I hold them, as to the propriety of labouring to spread it abroad while we are smarting from its defects at home. But where—and this is extensively—the principles of both are not identical, I have no hesitation in diverging from his views, and maintaining that to spend money in endeavouring to win over alien races to any given System of Theology, Code of Morality, or Theory of Religion which our nation may profess to hold, while it largely fails to practice, is, in the abstract, grotesque, and viewed as a fact, besides these (which are not less appalling because undisputed) of wholesale ignorance, wholesale misery, at our doors, is wasteful and immoral. The distress frequently, the dragging comfortlessness always, of the greater part of our lower classes, is not to be set aside lightly with a quip, or dismissed with an insinuation that they are better off than they are asserted to be. Nor can I think more highly of our correspondent's appeals to authorities, quotation of texts, or his deprecation of any shock to the sensitiveness of English benevolence. Questions of reason, and of right, of morality, and of principle, are not to be settled by polling the opinions of "authorities," or fixed like the unwieldy sand-banks of legality by the stakes and piles of precedents; true Benevolence does not float on wings so weak as to be brought down by a gust of wholesome criticism; nor does a quotation from the Bible render the necessity of investigating the reasonableness of precepts laid down there less proper, or the precepts themselves unquestionable; for in the same book Paul says, and the quotation is less doubtful, "Prove all things," adding the obvious recommendation "Hold fast that which is true."

While I cannot attach as much value as "An old Guy's man" may do, to the opinions of Sir John Lubbock, Mr. Taylor, and Mr. Herbert Spencer, who are not travellers, on the condition of natives they have never lived amongst, I can say that, in reading the travel narratives of Sir Walter Raleigh, Cooke, and Catlin; of Basil Hall, Livingstone, Burton, and Speke; of Sir Samuel

Baker, Stanley, James, and Joseph Thompson, and many others, from Baron Humboldt to Lady Brassey, I have always been struck, in their descriptions, with the comparatively blissful condition of the contented and hardy life of the Red Indian, and other wandering tribes, all down the scale, to the nude Savages that Stanley described in a recent number of the Anthropological Society's Journal, who have no God, and know no right from wrong. They at least are perplexed by no pangs of remorse, nor "soul-questionings"; no future visions of uncertain punishments or burning hells. Where uncursed by slavery, the native probably lives more happily in his forest, with his huntings and gorgings, his war dances and incursions, before the advent of Christianity, than he does after he has acquired his uncertain adherance to a New and Incomprehensible Divinity, accompanied by the doubtful benefits of Birmingham beads and guns, and Manchester calicoes, by the certain evils of ardent spirits, and civilised diseases, and the historically self-repeating process of his race extermination. Who shall justify, or assert to be "beneficial" to their unhappy victims, the bloody treacheries of Cortes in Mexico, and Pizarro in Peru? Dictated by a greed of gold and empire, but carried on under the hollow mockery of a Mission of Conversion, their crossed swords, indeed, swept away some atrocious sacerdotalisms, but at the expense of the utter extermination of a civilised, a progressing, an innocent and noble race. What was the result of Captain Cooke's Christianising contact with Tahiti and Oahu?—Revolution, slaughter, alcoholismus, syphilis, decimation, and slowly progressing subsequent extinction of their race. "The benefit conferred on them by Missions is therefore clearly not questionable." Will "An old Guy's man" ignore the recent history of Mission Episodes in China and Japan? Even Baron Heubner will bear witness to the massacres of harmless, and, till then, contented natives, which were the direct "benefits" of their contact with our Missionaries. Were the opinion of our colonists (who live among native tribes in every part of the world) taken as to the value of missionary work, the answer would be stentorian against its continuation. Commerce is the best, and should be always the first, agent in civilisation of savage tribes. After that you may invite those who have been educated to become converted. But to preach a religious revolution to such peoples as these brings them harm, without even the certainty of better acquired religious convictions. Your Chinaman, who has long stagnated in his empty creeds, and who pays his offering of burnt paper sticks to his "Josses" with even undisguised and habitual contempt;—your Japanese, who will freely change his government and religion, and whole habit of life, for a few dollars (with a picture of Fujyama),—will they profit by any new code they are so lightly induced to accept?—Or will they, whose Fatalistic Creed leads them in perfectly philosophical contentment through this life, perceive any satisfaction in or derive any benefit from a New Religion, which at least has made very few contented, among those who have possessed it from infancy, and by heredity for centuries? Can any of your readers call to mind a single fellow countryman who has viewed without reluctance the prospect of sudden or early death? I appeal to GRAY—

"For who, to dumb forgetfulness" . . . . .

Yet your Chinaman, your Japanese, are, as they live now, perfectly resigned at all times before the advent of this Terror of the average Christian. Will your "principles" leave them so well off?

It will be seen, that I have, in shewing that savages in their own ordinary states are fairly contented in mind and body, even doubted the value, to them, of our incursions of civilisation. And justly, for let History answer to it. Where are the brave Red Indians, with their One Great Spirit and Pipe of Peace, the civilised Peruvians and Mexicans with their Age of Gold, the Tahitians, and other races that we have "Civilised"? Gone, or nearly so; those left fast disappearing; where the Maoris, and Zulus with their splendid courage and physique, soon will also go. But We, we are Thirty-five Millions, and, CARLYLE says, "mostly fools." We have annually several thousand "Paupers" to support; and they are increasing. We have several thousand Lunatics, mostly with religious manias; and they are increasing. We have thousands of operatives and working men out of employ, or earning just enough to keep body and soul together, till they are too old to work, and must swell, in a miserable old age the ranks of the paupers, and the sick; and their penury—is increasing. We have in our Cities, colonies of women and children, sick and weary, working morning, noon, and night, and starving on the proceeds; a sight for Gods and Men, this class! And they are increasing. But we have, thank Heaven, religious sects throughout the country innumerable; and *they* are increasing. We have Missions at home, which spread principles and dogmas of all kinds among the classes who need bread; and *they* are increasing. Abroad, too, and *they* are increasing. These questions are not to be settled off hand; the great one is, where shall Benevolence betake itself? And I say that true Charity effects most positive good where its results are most certain, and the sphere for its activity is almost unlimited, and requires all its efforts to serve, here, where it should begin, and whence it should not travel, till no longer needed, At Home.

As to the necessity of religion making converts or dying out, I do not dispute it. But the question is as to the necessity of the Religion living at all. As the French Judge said to the man who asserted, in vindication of some theft, that "a man must live"—we do not see the necessity. Those principles which appeal to Human reason as the formulation of the best rules whereby mankind may progress in happiness and culture, will survive as long as man does, and will be followed, though any particular "Religion" die. And these, which are the basis of civilisation, may be spread, and will spread, without the aid of expensive Foreign Missions. The Belief in God, which I hold, is not more rational or less instructive, less beneficial, or more clear and intelligible,

than the similar faith which most of the Savages, whose ruin we bring about, while attempting their "conversion," hold equally firmly. And the last paragraph may afford some notion of the views which gave the tone of the article to which he so much objected to *M.D., Subscriber*, my second critic. I must add, however, in answer to his letter, that while the Hospital, its Governors, and its Physicians, are not represented officially in this Journal, I believe that not only "many," but even most of them have been Christians. But that which strikes me most in his, and it appears in the correspondence of all who argue from his platform, is the delightful calmness of the request that an opinion which he disagrees with may be therefore disavowed! If that body of believers of which he assumes the representation would oftener base their requirements on reason, instead of the assumptiveness which is only too often labelled "Faith," their principles would gain a universal, in place of a sectarian, an everlastingly abiding, instead of a shallow and precarious root. Let him first shew cause, before he can expect a judgement. *Is it possible, between Heaven and Earth, that he after all may not be right in his convictions, and the writer of Passim may be?*

Correspondence.

We have been asked to insert the following:—

Dear Sir,—Three days ago, at a Meeting convened by the "Medical Society," the Students of the "London" met "*en masse*," supported by members of the Visiting Staff, to consider how they might give assent to, and assist the Royal Colleges in, their endeavour to petition Parliament for a Royal Charter to grant an M.B. degree to the mass of London Students. A Resolution having been passed "*nem con*" that such a Degree was imperative to the interests of London Students, and that definite action must be at once taken, a Committee was formed to put themselves in communication with the other Hospitals, to further the objects of this Grand Scheme. It is for this reason, as Hon. Sec. *pro tem.*, that I write to you to ask if you would communicate with me so that a similar meeting might be held at your Hospital. It is, of course, only by a united effort that this Scheme can have anything like success.

It has already been taken up by two other Hospitals. It can not affect in any way such honour degrees as those of the London, Oxford, or Cambridge Universities, or even the F.R.C.S., Eng. It is found that London Students who pass quite as stiff an exam., say, as Edinburgh, Durham, Aberdeen, Glasgow, are heavily handicapped by not having an M.B. degree.

After meetings had been held at the various Hospitals it would be necessary to have a General Meeting of the Committees to consider what should be the next step to be taken.

There is no doubt that the various Lecturers, &c., should be invited to assist and attend the Meetings. They are always, I find, ready to help their students, and I am certain the general opinion amongst them is that the M.B. is a necessity.

Possibly the first part of the M.B., I mean Arts and Science, would have to be increased in severity, but that will be entirely out of our hands.

I maintain that the Scheme, if successful, will tend to elevate the tone of the profession as a whole, and will attract more Students to London, the only real field for Clinical study.

Apologizing for thus troubling you,—I remain, yours most sincerely,

HERBERT E. RAYNER, H.P. London Hospital.

A LONDON DEGREE FOR ENGLISH STUDENTS.

We cull the following paragraph from the Hospital Gazette:—

"In the annual report of the University of Edinburgh for 1886, it appears that during the year 3,635 students matriculated, as against 2,351 in 1876. No less than 1,915 matriculated in the faculty of medicine. Of these 769 (or about 40 per cent.) were from Scotland, 718 (or 37 per cent.) were from England, 31 from Ireland, 80 from India (among whom, it may be mentioned, was included the Thakoor of Gondal, a reigning Indian Chief); 265 (or upwards of 13 per cent.) from various British colonies, and 52 from foreign countries. The report also states that the steadily increasing prosperity of the University is largely attributable to the growing contingent of students of medicine, attracted by the renown of the faculty, and the magnificent new appliances at its disposal. The astounding fact that in one year no less than 718 English students entered the Edinburgh University to study medicine ought to command the serious attention of our London teachers."

That 718 English students should be practically compelled to enter at the Edinburgh University is little, if anything, short of a scandal. This does not represent the whole of the evil, for a good number of London students take refuge at the Durham, Victoria, nay, even the Brussels University. The fact is the London University is not fulfilling its place as a licensing body. It is even openly stated by the Senate that they mean the degrees to be Honor degrees, and although the course that has always. and is still, intended to be pursued has conferred the utmost benefit upon Medicine, yet it has failed to meet a want of the utmost utility, nay, even of necessity, to English students.

Wrongly no doubt, but at any rate certainly, the public believe that a man who can write M.D. after his name has been better educated than a plain Mr. We, ourselves, have known many instances of this. Possibly the difficulty does not occur in large practices amongst the wealthy, but it certainly does in the experience of those who make up the bulk of the profession. For example, we have known a man who possessed the diplomas of the Colleges of Physicians and Surgeons of London and

England, and, forsooth, one who had filled the highest appointments at a large London Hospital, and who knew and did his work thoroughly well, nearly ruined by the appearance of a graduate of a Northern University of no great repute.

In fact it may be said, and this we do without fear of contradiction, that if we come to figures, that England is gradually being annexed by Scotland.

We are informed on good authority that at a recent debate at the London College of Physicians, with two exceptions, all the support came from the graduates of the London University, and the opposition from extraneous Universities; and this, forsooth, for the establishment of a degree, capable of attainment by a London student, possessing the ordinary opportunities of obtaining the diplomas of the two Colleges. Thus it seems that graduates of the London University (the majority of them being teachers), appreciated the impossibility of students under the ordinary conditions obtaining the degree of their own University. Comment seems to be superfluous.

In short our position is, and we say it without fear of contradiction, that we obtain and have better facilities for clinical knowledge than any town in the world; that we are equally as well taught; and yet we are placed under the utmost disadvantage as against men who have not had a fraction of our opportunities.

No doubt it may be said that merit and knowledge will always prevail, but any one who knows anything of practice will smile at this.

We quite agree that the proposition that a further examination should be instituted in Arts and Sciences is a good one, but we contend that, as far as Clinical instruction and Clinical knowledge go, we are quite on a footing with the majority of the Universities, and probably, we may say with truth, vastly superior to some.

We trust it will not be long before the two London Colleges obtain the necessary powers, and that the proposed "University of Westminster" becomes an accomplished fact — and, indeed, we cordially agree with the concluding remarks of our contemporary, that if, "through their own obstinacy in refusing to meet the wants of students, they (the London teachers) allow the Scotch professors to take the bread out of their mouths. In a very few years some of our London Colleges will be obliged to close their doors, unless greater facilities are provided in London for obtaining medical degrees."

PATHOLOGICAL NOTES.

Severe Compression of Chest. Hæmorrhage into Spinal Canal and Left Pleura. Death from Shock.

History.—M., 40., was carrying box (2 cwt.) along plank, when he fell, and box alighted on his chest. Was admitted collapsed — almost pulseless. Respiration very slow and gasping. Brandy injected, and then pulse rose from 24 to 80—ultimately dropping to 40. No sign of external injury. Never rallied. Death about one hour after accident.

Post Mortem.—A well-built powerful man. No fracture of any bones. Brain normal. Blood extravasated into spinal canal from third cervical to fourth dorsal vertebra; entirely extra-dural and exerting no pressure on the cord which was quite firm and healthy.

Ten to 15 oz of blood in left pleural cavity. None in right.

Beneath the left parietal pleura was a small extravasation reaching from the third to sixth space.

Lungs quite healthy, save for one or more small lacerations on the surface. No internal hæmorrhage.

Other viscera healthy.

These extravasations were apparently due to the compression of the chest and the consequent venous distension.

THERAPEUTICS IN HOSPITAL AND PRIVATE PRACTICE.

Many of the differences which exist between hospital practice and private practice are, it must be confessed, of such a kind, that one who remembers his hospital work with pleasure must often look back regretfully to the days he spent in the wards,

In the hospital there are plenty of "good cases," and comparatively few of little interest, In private practice the reverse is often the case.

In the wards we have all our cases arranged before us for our study; in private practice much time and energy must be expended by us in visiting them.

In the wards we carry on our enquiries at leisure; may study our cases as fully as we like, and with as much or as little minuteness as their peculiarities may demand. In private the patients' work, the patients' pleasure, the patients' friends, and even the patients' dress, are less easily put on one side for our convenience than they are in hospital. Hearts are sometimes rendered practically inaccessible by dress and other circumstances, and it is curious how hard it often is to persuade a patient to provide a sample of urine for examination.

These and other similar obstacles may, it is true, be generally (although not always) surmounted by the exercise of patience and decision; but still the difficulties are real ones, and undoubtedly they are hindrances in the way of accurate and systematic study.

There is, however, one compensation to be found in private practice which is sufficient to counterbalance many of its drawbacks. It is the fact that the treatment of disease is generally a more hopeful and more satisfactory matter in private than in hospital work.

Consider the character of most of the cases in a medical ward. Very few are cases of slight ailments. Many are admitted because they are already so ill that their lives are actually in danger. Others are admitted after unsuccessful treatment as out-patients. Others come in rather for the benefit of food and shelter than from expectation of cure. Others are taken in rather as being suitable cases for clinical study than favourable cases for medical treatment.

If, again, we compare with the work of private practice the work of the out-patient physician, we are led to the same conclusion. The character of disease met with among out-patients does indeed closely resemble in its

main features that which is common in general practice, but a little consideration will show how much less favourable to treatment the conditions of out-patient practice are.

In the first place (and this point is a very important one) most out-patients do not present themselves for treatment at the first outset of illness, but wait if they can do so until either they can spare a day from their work, or until they are too ill to go on with it. How rarely, for example, have we the opportunity of treating a case of Bronchitis from the first outset excepting in private practice. How rarely, again, do we in hospital work witness the very beginning of an attack of Rheumatic Fever? Yet, in these cases, every hour saved is so much clear gain in favour of effective treatment.

Again, an out-patient who is only seen at intervals of a week, must often be at a disadvantage when compared with a patient whose treatment may be watched, and, if required, varied from day to day. Moreover, in out-patient practice, our treatment is of necessity almost restricted to the administration of drugs, and we have no chance of controlling effectively the food, temperature, rest, and other elements of our patient's life. Nor must we forget how much the success of a line of treatment may depend upon a personal knowledge of a patient's private life and family history, and of his character and surroundings, which only private practice can afford,

In short, the clinical character of In-patient cases, and the unavoidably unfavourable conditions under which the treatment of Out-patients must be conducted, must sometimes suggest a feeling of scepticism as to Therapeutics to a hospital worker. But scepticism is worthless if it be not critical: and it must be remembered when the facts under discussion have to do with the treatment of disease, that hospital experience is after all but a partial, and, to some extent, even an exceptional experience. The cases which are under treatment in our wards and out-patient rooms are not to be taken as examples of the power of medicine over disease generally.

Every man who leaves his hospital and joins the ranks of the general practitioners, may fairly expect to meet with a much larger proportion of cases amenable to treatment than he has hitherto been accustomed to encounter. Rare cases will be rarer, and P. M's will be unhappily scarce; but if he deals honestly with his opportunities, his confidence in the power of medicine to cure, as well as to diagnose disease, is sure to increase with his increasing acquaintance with the daily round of practice.

(R.)

NOTICE.

There will be a General Meeting of the Physical Society on Tuesday next, March 8th, at 4 p.m., in the Chemical Theatre, to consider important alterations in the Rules.

We have been precluded from publishing an account of the Physical Society's last Debate in this number for want of space. There is no room for any more Clinical Work in this number either.—Ed.

PERSEUS;

Or the Taming of the "Ex."

Come listen all ye students,
Come listen and be wise,
Ye clinicals and ward clerks
And ye dressermen likewise!
Who with scissors and with forceps
Conspicuously displayed,
Are the jealous admiration
Of the crowded colonnade.
Come listen all and sundry,
And you shall hear it told
How the ex-dresser came to grief
In the brave days of old.

Now in the days when Guius — Of Guye.
This famous hostel built,
To obtain self-satisfaction,
And divest himself of g(u)ilt, — Of ye law made bye Guye.
For the maintenance of order,
And for the common weal,
This law was made and chartered
Beneath his hand and seal.

"THAT WE, the hereinafter, — Touchynge ye Elder Residente
"Likewise hereinbefore,
"Do here in solemn conclave meet,
"Decree for evermore,
"THAT the senior chirurgeon,
"Of the Rooms sole monarch be;
"And every man within those Rooms
"Shall bow to his decree.
"LIKEWISE THAT each ex-dresser
"Shall be, and shall behave, — Touchynge ye Exe.
"Within his week of office
"As a menial and a slave.
"His be it without murmur
"To draw the foaming beer;
"And when poker is in prospect
"To make the table clear."

Thus runs the law and order
Which Guius made of old;
And the Ex, for generations
Always did as he was told;
Until the days of Perseus, — One Pearse becometh Exe.
The boldest of the bold.

Ye Residentes be met toe mayke merrie.

It was the hour of feasting,
The snowy cloth was laid,
And on the board profusely
The banquet was displayed;

They drinke atte Sherrie Wynne.

A bumper of Falernian
Stood by each feaster's side,
And every man in gulping down
The sparkling liquor vied.

Of Fredericke Bearde.

And Fredericus Barbus
Sate at the table head,

Of sleepye Scotte.

And on his left sate Scotius,
Longing to get to bed.

Of Bisshhoppe

There was Episcopalis,
The senior H. P.,

Of Tubbye ande Lunde.

And Tubbius and Lundos,
All goodly men to see.
But absent were both Vernix

Of Vernix ande ye Charitye.

And the senior Charity.

Fredericke commandeth ye Exe.

"What Ho! said Fredericus,
"My Perseus, hence I pray,
"Go find those two delinquents,
"And tell them what I say:—
"That the wine is flowing quickly,
"And they must have a care
"Lest two vacuous decanters
"Be all they have to share.
"Go hence, fetch Alexander
"And Vernix here to me."

But ye Exe answereth notte

But Perseus made no answer
And stared impassively.

Hee chydeth Hym.

"Ho Perseus! then said Barbus,
"What means this strange delay?
Up caitiff at my bidding
"Instanter, and away!"

Yet Hee smyleth.

Then Perseus smiled sarcastic,
And reared his haughty crest.
But he took no sort of notice
Of the chieftain's proud behest.

Ye compayne take an attitude of hostilitye.

Then uprose Fredericus,
And uprose Lundos then,
Rose Tubbius and Scotius,
And all the other men:
They armed them for the battle,
With loud discordant laugh,
With storms of execration,
And cannonades of chaff.
"A pretty thing, if Barbus
Must be defied like this!"
So they carried out the hero
And shot him in the Swiss.

Ande presentlye putteth hym awaye.

Then there was much rejoicing,
A loud triumphant din,
The while unhappy Perseus
Was struggling hard within.
But all his efforts to return
To dinner were in vain,
Until the absentees came down
And he got in again.

Fredericke yieldeth a boone.

Then out spake Fredericus:—
"Free pardon for the slave,
"If he will on his marrow bones,
"And promise to behave."

Butte ye Exe rebbutteth yte.

But Perseus was unconquered yet
And a scornful sniff he gave.

Thereon waxeth clamoure ande stryfe, and ye Exe becometh ejected agayne.

At this a fearful shout arose,
A shout which rent the sky,
And a smoking baked potatoe
Took the hero, in the eye.
A moment—and the door was locked,
That hero was outside;
And though he strove to burst it in
T'was all in vain he tried.
Then he got in through the window,
But his labours were in vain:
For the mandate of the chieftain
Ejected him again.

Hee faileth in spirite ande departeth awaye.

At length his spirit failed him,
His stubborn courage fell;
And he crept away to dinner
At the Terminus Hotel.
And in the room wherein he fought,
And in the students' club,
And in the parlours of the Square,
And in great Milson's pub,
When the shades of evening gather,
And the fires are burning low,
And on the walls the shadows,
Like phantoms, come and go:
With bated breath men listen,
While the fearful tale is told,
How the ex-dresser came to grief,
In the brave days of old.

Sport.

3rd Round Cup Ties.

St. Thomas' *v.* Guy's.—This Match was played on Friday, February 25th, at Richmond. The ground was in very good condition, but there was a very strong wind blowing straight down the ground.

Thomas' won the toss, and Russell kicked off against the wind. St. Thomas' promptly rushed the ball down and the first scrimmage was formed in our 25. Fripp, however, obtaining the ball out of touch, made a very good run of about thirty yards along the touch line, and then passed to Raw who took it a little further.

Next, one of their three-quarters got away, but was stopped by Jordan; their forwards tried to rush the ball on, but were stopped by Raw. After some more scrimmaging, Rygate and Cuff gained some ground by a neat piece of play; shortly afterwards, short runs by Prime, Jordan and Cuff, took the ball close to the St. Thomas' goal line. Toller and Tompsett tried to relieve their line, but were both tackled before they had gained much ground.

Next, some good passing by Russell, Jordan and Prime, endangered their line. At this juncture, Jordan was unfortunately put hors de combat by an injury to his leg, the immediate result being that St. Thomas' came through us, and were only stopped by Wallis.

Rygate now took Jordan's place as middle three-quarter, the latter moving up forward. For some time St. Thomas' pressed us, and kept the game in our 25. After a while we managed to gain a little ground, a short run of Cuff being mainly instrumental in this. They rushed us again, and we were obliged to touch down in self defence.

The drop out was entrusted to Cuff, who made a little kick, and, following up well, ran into touch at about half-way.

Next, Prime obtained the ball and dropped it into touch. After some scrimmaging Toller got away and made a good run, but was stopped by Wallis; the game remained close to our line, and we were soon obliged to touch down again. Cuff dropped out; the ball was well returned, and our opponents once more began to press us. Our forwards now made an effort, and by a good rush took the ball about half-way, and some good play by Allport and Fripp took it into the enemy's quarters. St. Thomas' forwards, however, rushed the ball down into our 25 again almost directly, but Russell partly neutralized this by a short, though useful run. More scrimmaging then ensued and shortly afterwards half-time was called.

On resuming St. Thomas' kicked off from half way; the ball was well returned by Cuff; the game was now confined to the forwards for some time, each side alternately gaining ground. At length Christie got away but was tackled by Steele; the St. Thomas' forwards next rushed the ball into our 25, where they were stopped by Rygate; Steele relieved us by a short run, but some passing by our opponents brought the ball back again.

One of their three-quarters next got away, but was well collared by Cuff.

Some good play by Raw and Steele now relieved us, and the forwards took the ball on into our opponent's 25. They got it away again, but Wallis, by a good run, brought it back. We still continued to press our opponents, but failed to score, several attempts in this direction being frustrated by forward passing. Suddenly we seemed to go to pieces; one of their men got away, passed the three-quarters and Wallace, and reached our 25 before being overtaken by Rogers. Next, Totter obtained the ball and succeeded in getting in. The kick at goal was unsuccessful.

Cuff dropped out for us, and for the remaining few minutes of time the game was confined to the centre of the ground.

We were thus beaten by a try and two touch downs to nothing.

The result was, to say the least of it, disappointing. For the first half of the game we were playing against a strong wind, and yet managed to hold our own, and after half-time we had, perhaps, a shade the better of the game; indeed, at one time, *i.e.*, just before the fatal event, it looked as if we must score. It was very trying, at this juncture, to see our chance spoilt by forward passing.

Of course we were very unfortunate in having Jordan disabled so early in the game, as it practically reduced our team to 14 men; this may account for *our* failing to score, but is no excuse for our going to pieces so suddenly at the end, when we were on their goal line, and allowing them to snatch a victory.

Rogers, Fawcett and Allport played especially well.

Surrey County Association Challenge Cup.

Guy's *v.* Lyndhurst.—This tie, in the third round, was played on Saturday, February 26th, at Denmark Hill, on the ground of the latter club.

We were without the services of Muspratt and C. G. Roberts at half-back, and their places had to be filled by two forwards. We won the toss and elected to play down hill, with the sun slightly in our favour. On starting, the ball was quickly rushed down into Lyndhurst's quarters, and several corners were obtained but with no result. About halfway through the first half, a free kick for hands was given against us near our goal, and Smith scored for Lyndhurst with a very good shot. This was hard lines for us, as, had we claimed hands first, the umpire and referee would have given us a free kick. We, soon after, missed a good chance of scoring through not charging their goal keeper, and this is a fault our men are continually making.

At half-time our forwards changed places, Holman leaving the centre and going back to his old place on the right wing. This improved things somewhat; Lyndhurst, however, were not to be denied, and Barham scored a second goal for them.

Our forwards now played up much better, F. H. Brown in particular working hard, and we were rewarded by a goal from a free kick by E. Mitchell. On restarting Lyndhurst got away, and after some give and take play in our quarters the ball was sent through our posts, but a claim for off side against Sturgeon for impeding Roberts was rightly given in our favour. From now to the end of the game we pressed Lyndhurst very hard, but it was only two minutes before time that we managed to score and make a draw.

The tie will be re-played on Saturday, March 5th, at Upper Tooting Cricket Ground, which has been kindly lent to us by the Casuals F.C.

The following was our team:—

Guy's.—H. B. Bolus (goal); A. C. Roberts and G. W. Mitchell (backs); E. J. D. Mitchell, A. T. Jones, W. E. Sturges-Jones (half-backs); F. H. Brown, J. L. Roberts (left); W. Winslow (centre); E. W. Sharman and H. J. Holman (right).

We have received a strong letter from "An Old Crock" about the Cricket Cup dispute, which pressure on our space prevents us from inserting this week.

Steps are being taken to call a Meeting to consider the advisability of forming a Guy's Hospital Rowing Club.

Guy's Hospital Gazette,

MARCH 19, 1887.

It is with deepest sorrow and the bitterest regret that we have to announce the death, from Pneumonia, of Dr. CARRINGTON, on the 16th inst. Of such a loss we cannot yet say more than that the shock will be great to all who loved, as all Guy's men, who knew him loved him.

A meeting was held in the Anatomical Theatre yesterday, Mr. Burghard in the Chair, when Mr. Halstead proposed and Mr. Alexander seconded, that a "Message of condolence be sent to the mother and relatives of the late Dr. CARRINGTON."

The Funeral will take place to-day, at Norwood Cemetery, at 3.30 p.m. Cortège leaves St. Thomas' Street at 2.

We have received by post this week a pamphlet entitled,

"M PASTEUR AT BAY."
"FAILURE OF THE EXPERIMENT."
"By J. H. CLARKE, M.D."

This is issued under the stamp of two societies for the "Protection of Animals from Vivisection," and is, we suppose, in some way intended to further or aid their views or opinions. What effect such pamphlets may have upon the ignorant it is impossible to say. The impression made upon ourselves by its title alone was that we should find so aggressive a style upon the cover-page to be the necessary supplement of some weak argument or other within. Nor were we deceived. This pamphlet contains, within five and a half pages of print, as silly a tirade as perhaps it was possible for the most fatuous of the foaming sentimentalists, whose frothy benevolence embraces all species of animals but mankind, and revels in every kind of agitation that may be carried on without reason to put together in so small a compass.

It is a quality of Progress that it cannot be effected without the destruction of much that is old, and perhaps had been valuable; and it is an attribute of Public Benefactors that they cannot effect good without incurring the hostility of the Petty. The sectional area of the shadow of a sphere apposed to light increases as the square of its distance from its origin—and in about such a proportion does the jealousy, in small minds, increase, of the men of eminence compared with whose bright utility they are but shadows, and their power of abuse grows larger, and their ability to understand and appreciate the character of greatness smaller, in the same ratio as their distance from light and reason. Starting with a fallacious assumption, continuing with an array of one-sided facts and figures, interspersed with malicious insinuations, supported by weak professional and strong unprofessional opinions, concluding with an inclusive quotation from a not particularly authoritative Professor, the whole richly seasoned with the usual invective of ANTI-ANYTHING BENEFICIAL Fanatics, this pamphlet is, like the matter it professes to treat of—rabid, from beginning to end.

We could not—and we hope we have not sought carelessly—find the name JOHN H. CLARKE, M.D., in the Directory. But is it possible that a man like PASTEUR, whose early researches have been the foundation of our knowledge of FERMENTS, the starting-point and model of all subsequent BACTERIOLOGY: the tree which has borne the precious fruits of Listerian and ANTISEPTIC SURGERY: the direct result of which has been the saving of thousands of lives: and the indirect results of which as many more by vast improvements in Hospitalism and Hygiene: is it possible that this great man can be a subject for attack by any educated member of our Profession? The unassuming but steady, certain, and brilliantly successful results of Pasteur's system of investigations have been triumphantly shewn at least, in Fowl Cholera, and in Cattle-Charbon: and these alone should be sufficient grounds for insignificant and inexperienced persons to wait for his own trial verdict on his system of Prophylaxis—we might say *Prophylaxination*—in regard to the most terrible of maladies, *Hydrophobia*. Are the à priori argument of Vaccination and the millions it has saved nothing to these "anti-vivisectionists?" We fear not. Reason herself is dumb before such extraordinary crassness of perception. They will smash insects and torture worms to angle for fish which they kill for pleasure, destroy rats in the agonies of arsenic and strychnia, drown and suffocate pups and kittens, and drive horses and asses to death,

slaughter calves, sheep, swine and oxen to fill their stomachs, these sensitive sons of universal Benevolence. But to obtain through the slight sufferings of a hardly sensitive cat or dog, a cure for the worst agonies of a human being merely, is too much for these Snodgrasses of delicate sensibility, these Pecksniffs of testaceous virtue!

Would they refuse the comforts of chloroform, ether, nitrous oxide, of eserine, cocaine, of chloral hydrate? Would they forego ligation of their vessels in an amputation, or all the skill that has been acquired for medicine and surgery from that Science of Physiology whose most certain and valuable acquisitions of knowledge have been gained *by Vivisection?* We think not. But inconsistency is nothing to the irrational. Like the Gadarene Lunatic, they dwell among the tombs of dead superstitions and sentiments, and cry out cutting themselves and repelling their Benefactors. Is it too much to hope that similarly the voice of true Humanity will one day speak to them and leave them, sitting, in their "right mind?"

TWO CASES OF ACUTE CELLULITIS OF THE SCROTUM WITH GANGRENE.

SECOND CASE.

Male child, 5 weeks old. Admitted into Patience.

History. Was quite well until three days previous to admission. Has had no exanthems, and is considered a healthy child. Three days ago it was first noticed to have swelling of the scrotum and this has rapidly increased. No difficulty in micturition.

On Admission. Child feeble and collapsed, P. 136, T. 99.

Scrotum and penis of a dusky red colour, tense and brawny, not pitting on pressure. Scrotum about as big as child's two fists. Over the raphe, at most dependent part is a greyish black slough, about 1 by ½ inch.

Foreskin and urethra readily admit a probe, and no calculus or other obstruction can be found in the urethra. Urine can be passed freely. There is redness and swelling of the skin over both buttocks, lower part of abdomen, upper half of right thigh, whole of left thigh, and upper half of left leg; this has a definite raised border and resembles erysipelas.

The inguinal glands are enlarged.

Scrotum and penis punctured freely, and an incision 1¼ inches long and ½ inch deep made through slough. The section looked gelatinous and did not bleed.

Next day the gangrene of scrotum was spreading, and the penis, buttocks, ischio-rectal regions and thighs, presented patches of gangrene. The child sank rapidly, and died 24 hours after admission.

Post Mortem. Bladder and urethra healthy, no stone. No extravasation of urine. No plugging of femoral vessels. Several large patches of collapse in right lung. No bronchopneumonia. Kidneys healthy.

Remarks. I think there can be no doubt that this was a case of erysipelas running on to gangrene. In favour of this view are the facts that redness and swelling were the first things observed, that the glands were early enlarged, that the redness, in spreading down the legs, assumed the vivid red tint and raised well-defined border of erysipelas. Noma was considered as a possible cause for the condition, but the absence of gangrene in the folds of the groin and between the thighs, or on any parts exposed to chafing, the rapid spread and wide distribution of the disease, and the absence of history of exanthems, negatived this view.

How the severity of the disease is to be accounted for here is uncertain. The child's age, its feeble appearance, and perhaps a congenital taint, may have had something to do with it.

It is recognised that erysipelas may run on to gangrene in certain parts where, the cellular tissue being very loose, so large an amount of exudation can take place as to strangle the vessels by the tension it causes, and the eyelids and scrotum are the commonest instances of this. But that the gangrenous process should not only affect the scrotum, but extend to the buttocks and even down the thighs, is, I should think, a very rare condition.

S. WACHER.

Mr. Leonard Braddon will be obliged if the gentleman to whom he lent his Galabin's Midwifery would kindly return it (Upton-upon-Severn).

CLINICAL LECTURE

By Dr. Goodhart, 26th February, 1887.

Dr. Goodhart said he proposed to make some additional remarks on the subject he discussed at his last Clinical Lecture, viz., "On Stools." The former Lecture has been already reported in the Gazette.

Stools may be classified as well by their consistency as by their colour, falling into three groups—

(*a*) Watery.
(*b*) Pultaceous.
(*c*) Inspissated.

(*a*) Watery stools may be the result (i) of *purgative drugs*—in this case we have congestion of the mucus membrane of the intestines (often seen *post mortem*), and a more or less copious exudation of serum—in other words more or less enteritis is set up. Realizing this fact will suggest caution in the employment of purgatives in certain cases. (ii) They may be the result of *saline drugs;* here the action is one of reversal of the normal osmotic current flowing from the intestine into the vessels of the portal system. (iii) Lastly they may be the result of *nervous excitement*—This is presumably a disturbance of the equilibrium preserved by the vaso-motor nerves in the intestinal vessels; these become dilated, and a copious watery secretion ensues: it is in fact parallel to increased perspiration on the cutaneous surfaces resulting from nervous excitement. It would appear that this excessive watery secretion is reabsorbed, for if the desire to defæcate is withstood this desire presently passes off.

(*b*) Pultaceous stools due to (i) excessive secretion of mucus, and (ii) to defective absorbtion of the chyme were discussed in the last lecture.

(*c*) Inspissated stools (not to be confounded with chronic constipation) are generally due to change of diet, habitat, or mode of life.

The Lecturer here digressed to point out the difficulties in private practice of knowing how to treat cases where the patient complains that he is "never well" in a certain climate, that it is "too relaxing," "upsets the liver," "causes headache," &c., &c.; when the result of such idiosyncrasy is inspissation of the stools, unpleasant complications such as fissure or fistula may result. The exact cause is obscure; it may be due to the atmosphere or to the water. The indication is to provoke the secretion of mucus—often a difficult task: the best remedies, perhaps, are oily materials, which may act as mechanical lubricants. If it appears that the fault lies in the water, soft water may be ordered for drinking purposes.

Reverting to abnormal looseness of the bowels, Dr. Goodhart grouped such varieties, as occur as minor ailments, as follows:—

(i) Patients whose bowels are moved three or four times a day; no further morbid condition; such persons can hardly be called patients for they seldom seek medical advice.

(ii) Patients with a "barometric" intestine; *i.e.*, those whose bowels are affected by changes of the weather.

(iii) Patients who, on first rising in the morning, experience a griping pain in bowels, and have one or more motions immediately. Such a case may possibly be due to the sudden chill on rising. For treatment one might give opium over night, but it is better to elude the unpleasant habit by some other means, *e.g.*, taking warm milk before rising.

(iv) Patients who suffer from looseness of the bowels under any slight nervous excitement, require treatment aimed at their nervous system, *e.g.*, bromide, and so on to strychnia.

(v) Looseness due to alcoholism—a case cited; a woman who takes little food, but is always taking odd glasses of sherry, and also a good deal of tea; in this patient any worry brought on looseness of the bowels. The treatment is obvious. The detection of the cause may at first be hard.

The Lecturer then passed on to discuss some points in the anatomy of the sigmoid flexure bearing on the question of constipation.

In the older books on medicine "passing a long tube," for diagnostic purposes into the descending colon, is spoken of as a possibility—this is, practically, an absolute impossibility. Mr. Treeves has well described the sigmoid flexure as resembling a capital Omega. The loop normally hangs down into the pelvis, and

being a reservoir for fæcal material, may be felt *per rectum*, and to the inexperienced may simulate a tumour; the diagnosis depends on recognizing the enclosed fæces by their admitting of indentation of the finger. On the other hand, in subjects of chronic constipation, the flexure may not hang into the pelvis, but, extending across the abdomen, may simulate a tumour in the right iliac region. It should also be remembered that the transverse colon often is curved downwards in its middle third, and may be felt much lower than expected.

As the result of experiments on the cadaver, Dr. Goodhart found it impossible to pass a tube more than two-thirds way through the sigmoid loop, and this only by the application of an amount of force, and stretching of the meso-sigmoid as would be unjustifiable, if it were not also impossible, during life. The danger of perforation and peritonitis in such an attempt is obvious. Enemata were then mentioned as an aid to diagnosis and Lund's inflator shown and explained: its use for inflating the colon in colotomy; for administering ordinary enemata; and for inflation in cases of intussusception was pointed out, in all cases leakage of the injected material being avoided by the air pad.

Lastly, Dr. Goodhart discussed the passage of mucous casts of the intestine, showing a specimen that had been sent to him within the last few days by Dr. Wheelton Hind, of Stoke-on-Trent. This patient, before passing them, thought she was suffering from intestinal worms. After a dose of senna she passed yards of such casts. Cases of Mr. Hutchinson's, reported in the Pathological Society's Transactions, were then adverted to. The salient points were that such cases generally occurred in spare ill-nourished women; they were very chronic; very unamenable to treatment; and lastly, that the loss of mucus that these casts must represent appeared not to affect in itself the patient's health.

A typical case of mucous disease in a child under the lecturer's care at Evelina, was then cited. The *symptoms* of such a case are numerous and varied. Dr. Eustace Smith's remarks in his "Wasting Diseases of Children," were quoted. Its connection with nervous symptoms, *e.g.*, somnambulism; the wasting suggesting tuberculosis; pains in the abdomen and side relieved after passing the mucous casts; the dry skin and the offensive phosphorescent breath; the enlarged abdomen; are common symptoms. The most important diagnostic point is the absence of pyrexia. The disease often comes on after pertussis, and if any of the cough remains, the phthisical nature of the case is still more strongly suggested. The nervous symptoms often predominate leading to tetany; talipes of the feet; the hands curved, pronated and rigid.

Dr. Eustace Smith thinks the nervous symptoms secondary to the faulty absorption and morbid condition of the bowels; Dr. Goodhart would place the nervous disorders in a more primary position.

As regards *treatment*, general tonics are the only drugs that are of any good; if the mucus is undergoing acid decomposition in the bowels, potash is indicated; later, one should try nux vomica and the mineral acids. The main point is to attend to the diet. The patients are apt to eat voraciously and often of carbohydrate food-stuffs; these must be limited, the vegetables with least carbohydrate ingredients being ordered, and toast substituted for bread. Meat, Fish, Eggs, and Milk, in due proportions, should form the chief articles of diet for the time being.

A CASE OF STRYCHNIA POISONING.

On Sunday, the 20th February, Thomas F——, æt. 22, Chemist, took by mistake a capsule containing about half-grain of strychnia, and set out for a walk.

10.15. He began to notice twitching of muscles of legs, which gradually got worse. Thinking he must have made a mistake he went into a Chemist's shop and asked for an emetic, but the Chemist refused to serve him.

The spasms in limbs becoming much worse, patient was sent up to Hospital in a cab.

On admission.—12 mid-day.

Patient can talk freely and open his mouth well, there being little tendency to spasm of the masseter muscles.

Tongue when protruded is tremulous.

Patient lies on his back with legs extended, arms folded over chest, and fingers flexed. His expression is a mixed one, his eyes showing fear of an impending event, his mouth being drawn

into position of a fixed smile (Risus Sardonicus). Pupils dilated, equal, react slowly to light.

Well-marked patella clonus on tapping ligamentum patellæ on both sides.

Ankle clonus—Right, well marked.
Left, less marked but present.

Elbow tap—Present on both sides.

Superficial reflexes very much exaggerated.

Pulse regular, full, 132.

Respirations 24, shallow and jerky, owing to spasmodic contractions of intercostal muscles and diaphragm.

Patient feels a horrible sensation of having lost control over his own movements. He has localised spasms every few seconds, but the sensation to which they give rise is not one of pain.

12.15. Pupils still dilated. On holding a lighted match before eyes pupils slowly contracted. After looking at the light patient began to feel queer, and in a few seconds was seized with a general tetanic convulsion. His head was thrown back, spine arched, legs extended, elbows drawn to sides, forearms flexed on arms and in position of extreme supination, wrists flexed, fingers bent up upon palms.

His face presented a ghastly expression. His eyes were open and fixed upon the ceiling, angles of mouth drawn up making deep labionasal folds and showing almost the whole of his upper row of teeth. His chest was fixed, and before the end of spasm his face became livid.

In about fifteen seconds the spasm passed off. Patient was perfectly conscious and asked anxiously as soon as he was able to speak "Am I going to have many of these?"

He was now given pot. brom., gr. 40; chloral hydrate, gr. xx., in water; he swallowed it with difficulty having considerable spasm of muscles of deglutition and masseters.

After this convulsion patient was more irritable, contractions in muscles over a wide area were set up by slight stimuli applied to the skin (e.g., feeling the pulse). Temperature 98·8°.

12.30. Patient lies with his eyes closed. Risus still marked. Pulse 128, full and regular. Respirations 24, shallow. Was given pot. brom., gr. xl.; choral hydrate, gr. xx.; and an inhalation of nitrite of amyl. Breathing now became deeper and spasms less frequent.

12.45. Inhalation of nitrite of amyl repeated.

1 p.m. Pulse 116, regular, full. Respirations 20. He now occasionally takes deep and easy respirations.

Same dose of pot. brom. and chloral hydrate repeated.

Patient looks more comfortable and talks cheerfully.

1.15. Pulse 108. Respiration 20, quiet. Risus and spasms almost gone. He says he begins to feel again that he can do what he likes with his own limbs. He feels exhausted, and all his muscles are tender on pressure as if bruised.

2.30. Patient went off to sleep and slept quietly until about 4 p.m. At 6 p.m. he got up and walked out of the ward at his own request and against advice.

At no time did he experience any sensations he could call painful, but during the severe convulsions he felt as if he were being throttled and as if his limbs were being rolled up.

W. F. CLARKE.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Dear Sir—Would you allow me, through the medium of your Journal, to ask the Cricket Committee why nothing further has been done with regard to the Cricket Cup.

We were, I believe, disqualified, seemingly unjustly, at a Committee Meeting of the United Hospitals held in November or December.

At that Meeting, and also afterwards, when some of the U. H. C. C. Committee came to the Hospital, a notice of appeal was given in against the decision.

I should like to know whether our Committee intend taking any further steps in the matter. It seems ridiculous that such a decision as that arrived at by the U. H. C. C. Committee should be let go by without an appeal being made. I might say that the Secretary of our Club is never to be seen; and no information regarding matters of the Club can be obtained. It seems ridiculous that one should be appointed to such a position, who takes so little interest in the affairs of the Club. From inquiries, I find that he has not attended a single Committee since he was appointed Secretary, nor has he entered a minute in the "Minute Book." May I ask if this should be the proper state of affairs? Is it not possible for our Captain, whom we looked upon as a most energetic one during the past season, to come forward and put things on a more satisfactory footing. I think it would be a great pity that for the sake of a little trouble and interest in the affairs of the Club, we should have the Cup wrested from us in the manner decided on by the U. H. C. C. Committee.

Trusting that this letter will receive the attention, which it undoubtedly deserves at the hands of our Committee.—I remain, yours truly,

"AN OLD CROCK."

We have received other letters on the subject of "Charity," but must, we fear, close the discussion on the subject.—Ed.

Physical Society.

On Thursday, March 3rd, Mr. W. G. Brett read a paper on the Surgical treatment of cerebral cases, confining his remarks more especially to trephining in cases of cerebral tumour, cerebral abscess, and traumatic epilepsy.

After some preliminary remarks on precautions to be taken in cerebral operations, and the choice of instruments and anæsthetics, the author entered on the subject of cerebral tumours. What cases are suitable for operation? Those which yield to medical treatment must first of all be put aside, *e.g.*, gummata in many instances. With regard to tuberculous growths, multiplicity and affection of other organs to be taken into account. Early diagnosis and radical treatment insisted on for suitable cases. Dr. Hale White's statistics quoted, that out of 100 cases from our records, 10 certainly, and 14 probably, might have been operated on with benefit. Cases of Godlee, Durante and Victor Horsley then quoted.

The diagnosis of cerebral abscess with reference to early operation was then fully discussed. The symptoms of suppuration, and the rarity and difficulty of spontaneous evacuation pointed out. The methods of procedure and precautions to be taken were explained at length. Case of Dr. Hulke quoted. Author's opinion that to remain passive when pus is diagnosed is criminal.

The question of operating in cases of traumatic epilepsy next occupied the attention of the Society. The theory of epileptic centres having been touched upon, the author propounded as necessary for the production of convulsions two factors—1st, a persistant abnormal excitability of the nerve centres in the medulla, and 2nd, a peripheral irritant. Indications and contra-indications for operating. Lesions giving rise to epileptiform convulsions; in more than half the cases fracture, usually compound and depressed, in others contusions or scalp wounds; in others, traced to a slight injury received in childhood. Lapse of time between injury and convulsions varies from a few months to many years. Statistics of H. Walsham: out of 82 cases, 48 completely cured and 13 relieved. Mortality under 10 per cent. The desirability of early operation to prevent increase or permanency of hyper-excitability of centre.

Mr. Burghard, in opening the debate, gave a detailed account of the rules which Mr. Victor Horsley laid down for surgical interference in such cases. He spoke also of the means which he took to ensure perfect asepsis by shaving the head, and saturating the scalp with an antiseptic lotion, some time before operating; of the shape of the scalp-flap, and of the dura-matral flap; of the hæmostatic influence of morphine and chloroform; of the ready means of stopping hæmorrhage by continued pressure by means of a warm sponge; and of the desirability of making only vertical incisions into the brain-substance. He discussed the pathology of Potts' puffy tumour, and remarked on the want of success of subsequent operators.

Mr. A. S. Taylor discussed the pathology of pressure changes resulting from depressed bone, having seen cases in which the symptoms disappeared immediately after removal of the depressed fragment. He felt that observers were too ready to assert that depressed bone could not produce compression symptoms, since the amount of compression was so slight as compared with that present in tumours or hæmorrhage. He would trephine at once, after deciding that pus was probably present.

Dr. Goodall referred to the extreme antiquity of the operation of trephining, a French writer having shown that it had been performed in the stone age. At the present time savages are in the habit of trephining for epilepsy, their object being to make an opening for the Evil Spirit to escape.

He thought that much of the credit for the success of brain-surgery was due to Dr. Hughlings-Jackson for his early theories. He felt that the discovery of Jacksonian epilepsy was an immense scientific gain, and that this formed the basis for much present and future advance in Medicine and Surgery.

He referred to the extreme difficulty sometimes experienced in distinguishing between cerebral abscess and meningitis.

Mr. Routh referred to two cases of subdural hæmorrhage, and enquired whether surgical treatment had ever been adopted in such cases.

Mr. Brett answered the various criticisms upon his paper, and a vote of thanks to him was carried unanimously by the Meeting.

A Special Meeting of the Physical Society was held on Tuesday afternoon, March 8, when the new rules proposed by the sub-committee were considered and adopted. Their effect is to lay more stress on general science as affording subjects for debate, and, it is hoped, that junior men will, in future, find more to interest them in the Physical Society. Special attention was drawn to the rules which require presidents to attend regularly, and which orders papers to be sent in a week before the day on which they are to be read.

Passim.

The Physical has made a fresh start; and Mr. Colclough's paper affords a new and we hope successful departure. The Debates at the last two meetings have been, as well as the attendance, a great improvement upon recent times. But why do the 1st and 2nd year's men still hang back so much? In the Arena of General Discussion they stand on an equal footing with Senior men, as well as Professors. They may even come and individually assume

"Superbiam quaesitam meritis,"

and vindicate their superiority.

SMOKE AT THE PHYSICAL.

Remembering, doubtless, the adage "Where there is smoke there is fire," the Governors have sought to re-invigorate the Physical Society's Debates by kindly allowing the Members to smoke at their Meetings. This will be no mere luxury, as it will certainly add density to the Discussions.

Smoke at the Physical! The pipe in the Dissecting Room has long been one of our most cherished privileges at Guy's. We are not sure whether much of the good work done there is not directly due to it. The superior industry of the German is largely connected no doubt with the greater size of his pipe. The presence of such a complex vapour round his head involuntarily stimulating his faculties of Analysis. Who can light a pipe without thinking of the far away tropics where the weed flourished amid luxuriant verdure, and sounds of brilliant birds, strange animals, and teeming insects; how it spread itself out when its budding parts were cut off, into greater breadth of foliage, as a man expends his strength in good actions for others when the hope of his own life has been destroyed, and the object of his selfishness has vanished. How it was cut down and gathered by swarthy Ethiopians and cast into heaps to ferment, that its virulent poisons might be decomposed, and its aromatic oils only abide for us; and dried in a glorious sun; of its passage across three thousand miles of brine, full of alteratives, curing Epilepsy, and Syphilis, and Scrofula, all washed off the ribs of the earth to be dissolved in it; of the continuity of the fire which lights it, in direct succession, with, probably, the first spark struck by the early savage from flint, or his first adventure with the glowing venom of the volcano; and how all the result of these myriad and eternal agencies is dissipated quickly into a little vapour, and particles of coal, as life, slowly built up, like a card-tower, by added increment to increment upon a little lump of protoplasm, similarly collapses, and splits apart into paltry elements, that career away, known into the unknown, to renew another, perhaps yet more vicissitudinous cycle of change! The Smoker sees all these things in every cloud he blows; and it does him good, or ought to. They are all pictures in one form or another of Infinity; the contemplation of which, if inutilitarian, is at least ennobling. No one can feel mean in the presence of the Great, the Limitless, the Eternal; and the Nitre that fizzes as he lights his birds-eye, recalls sodium-lines, and spectroscopes, and stars, and distances, and Philosophy, and Metaphysics. There is Sirius, "*only*" fourteen Billions of miles away; blazing in elements like our Sun; there are those Nebulæ of glowing gases, flung into the firmament like gauzy clouds of folded light, magnificent and inexplicable! Orion strides forth with such a glory beneath his belt, the King of constellations.

. . . . "Condit caput in nubibus."

Smoking at the meetings of the Physical is a great and glorious privilege; debates may now, like Orion, carry their heads in the clouds; it will be better than carrying clouds in their heads.

The Army Examinations.—A little self-glorification occasionally! The School may be proud of having turned out (this does not mean congratulate itself upon having got rid of) such successes as Dr. Meyer, and Messrs. Elliot, Childe, and Hailey, who took, in the examination for the Indian Medical Service, respectively 1st, 2nd, 3rd, and 17th places, among the twenty-eight; and Mr. Spong, who took 5th place in the competition for the British Service. We congratulate them all and wish them luck.

Muscular Anomaly.—One of our contemporaries (*Lancet*, March 5th) publishes the certainly marvellous anomaly of a biceps flexor *cruris* arising by three heads; the extra head coming off "below, and outside the insertion of the *coraco-brachialis*." This comes from Ireland, otherwise we might feel surprised at the length of it.

Contributions do not flow in quickly. We are not going to fade; but is it necessary to say that we shall welcome any interesting communications on Medical or allied Topics?

Green Extracts.

Les Bacteries *et leur rôle, &c., par A. V. Cornil et V. Babes.*

(continued.)

PTOMAINES.

Before proceeding with an abstract of a most interesting chapter on this subject, we must mention the following corrigenda in the first part of this review, viz.:—

p. 9, col. 1, line 23 from bottom, *for* shore *read* spore.
" " " bottom line, *for* like *read* life.
" " 2, line 29 from bottom, *for* nulti granuries *read* milligrammes.
" " " line 28 from bottom, *for* bacilla *read* bacilli.
" " " in second col. of tables of strengths, all the figures after 1 *in* 600 represent per centages, and should read 5½ in 100, 3 in 100, &c.
p. 10, col. 1. In this table the second col. should be headed "Strength (necessary) to *kill the bacilli*. In same col., Pepperment, should be Peppermint; and lower down, *carbon* means *charbon*.

Putrefaction is well understood to mean the dissolution of the highly complex chemical fabric of the body into other and ultimately simple compounds, by a process which leads intermediately to the production of gasses and substances often disagreable to the senses, and unstable of nature. Among the products are sulphides, and carbonates of ammonia; phosphoretted and carburetted hydrogens; and volatile fatty acids; later, hydrocyanic and butyric acids, leucine and tyrosin arise; but the more subtle and unstable compounds to which the poisonousness of putrefying matters are due are bodies of complex structure, resembling the vegetable alkaloids in their properties, and termed for this reason and from their origin cadaveric alkaloids, or ptomaines. MM Cornil and Babes briefly touching on the history of the elaboration of these bodies, mention that Panum, in 1851, having extracted a compound from putrid flesh, compared its activity to venom, but thought it not of an alkaloidal nature; Bergman and Schmiedberg, next got a toxic compound from putrid pus, which they called *sepsine*, and found to be nitrogenous; Zuelzer and Sonnenschein (1869) announced a preparation from "anatomical macerations" of an alkaloid which dilated the pupil; Dupré and Bence-Jones (1866) extracted from human remains an alkaloid-like substance, "*animal kinoïdine.*" But in 1873, *Selmi* working in Italy, with the corpse, and *Gautier*, in France, with albuminoids fermented by bacteria, found the existence during these putrefactive processes of several alkaloids. These, since called Ptomaines, are soluble in ether, and behave with reagents analogously to atropine and hyoscyamine.

General reaction of Ptomaines.

Molybdo-phosphoric acid gives a ppt.			flocculent, yellow
Platinic chloride ...	,,	,,	yellow; or rosy; easily decomposed
Chloride of gold ...	,,	,,	yellowish; crystalline
Iodine in iodide of potass	,,	,,	berry-brown
Tannic Acid	,,	,,	white flocculent
Perchloride of Mercury	,,	,,	thick cheesy white (some are always found not precipitable by perchloride)

According to *Selmi*, groups may be distinguished extractable by different agents; he distinguishes:—

(1) Those soluble in an acid solution.
(2) In an alkaline ethereal solution.
(3) Extractable from an alkaline solution by *chloroform*.
(4) Soluble in amylic alcohol.
(5) Unextractable by any of the above proceedings.

Selmi's ptomaines were crystalline, as also were their platinc, auric, and mercurie chlorides; but they were obtained in quantities too small for analysis.

A. Gautier not only recognised the formation of Ptomaines during putrefaction, but first shewed their bacteridian origin in albumen fermentation, and moreover demonstrated that in all healthy men and animals, these alkaloids or their analogues are being constantly formed (in digestion) and as constantly destroyed by oxidation and excreted.

Gautier and Etard (Comptes Rendus XCIV, p. 1106), gave the first analysis; from observations carried on on several hundreds of kilogrammes of beef, horseflesh, fish, &c., they shewed that all their putrefactions formed necessarily and constantly, two alkaloids, viz.:—

Parvoline = $C_9\ H_{13}\ N$
Hydro-collidine = $C_8\ H_{13}\ N$

The latter gives crystallized, not very soluble compounds with platinic chloride, and one very alterable salt with Au Cl_3; it has a high reducing value, and is not to be confounded with a base $C_8\ H_{11}\ N$, identified by Nencki (who found it in pancreatic bacteridian digestion products), with *collidine*. Since these researches, two oxygenated bases have been extracted from putrid matters (by adding tannic to their solutions, and decomposing the tannate by lead oxide in alcohol), by G. Pouchet; one, $C_{17}\ H_{18}\ N_2\ O_6$, forming short thick microscopical crystals, turning brown in the light; the other, $C_5\ H_{12}\ N_2\ O_4$, less unstable, in needles; and both forming definite crystals with Pt Cl_4. They must both very closely resemble *oxybetaine* or *muscarine*.

More recently (1881) this chemist has extracted two bases from normal urine, $C_{17} H_{12} N_4 O_2$, and $C_{17} H_{14} N_4 O_2$. Homologous and isologous with these last is one $C_5 H_8 N_4 O_2$, which represents a class of alkaloids, of extensive distribution, discovered since 1881 by Gautier, in urine, saliva, serpent-poison, muscle-juice, &c., constantly found in these substances, crystalline, and analogous to carnine, and creatinine. To these researches may be added those of Brouardel and Boutiny; and Guaresdin and Mosso, who obtained from putrid matters an oil, possessing properties like those of curari.

The analysis of these bodies is very delicate work, varying as their production does with moisture, temperature, and duration, in fact everything that influences putrefaction. Moreover it has to be determined if different microbes produce different products, and clearly to trace them to those microbes. Moreover the alkaloids themselves vary during the period of operations. Some arise at a given time and begin to disappear almost immediately, so that they have vanished in six or eight days from the commencement of putrefaction; and compounds, like ammonia, form and hamper and vitiate the experiments.

The Authors give a full analysis of Brieger's Researches. His method is briefly as follows:—

(1) The putrefied meats or other matters are suspended in water; (2) to which is added hydrochloric acid; which fixes the bases (the solution must not be too acid); filter; and evaporate to a sirupy consistence.

(3) The Ptomaines are extracted from (1) by absolute alcohol which is evaporated; this is repeated several times; by which means, bases, with difficulty soluble in alcohol, such as hydrochlorate of *neuridine*, have been isolated.

(4) To an alcoholic solution, such as (3), add $Hg Cl_2$ in excess, and let stand 24 hours. Warm to boiling the preparation formed, and filter (from the albuminates and peptones). Cool filtrate, when double salt of mercury with chlorine and *choline* will separate out (and may be purified by recrystallization and split by sulphuretted hydrogen), other alkaloids remain in solution as double salts.

(5) *Neuridine.*—Add picric acid to (3). A preparation is formed, soluble in warm but not in cold water; choline also gives a preparation, but, being more soluble, may be separated out by cooling and crystallization afterward.

(6) *Cadaverine* and *putrescine* are formed among other double salts of mercury in (4); but they may be obtained as hydrochlorates, picrates, platinates or aurates; the aurate of putrescine is hardly soluble, while that of cadaverine is easily so; and they may be separated by this means, or by crystallization from alcohol (96%). The alkaloids are then obtained pure by doubling with $H_2 S$. Obtained from its hydrochlorates, putrescine crystallizes in needles, and cadaverine, which is more soluble, is generally accompanied by *saprine*, *mydaleine*, which are successively separated by similar processes. The last crystallizes in very fine needles, and have to be dried over strong sulphuric acid.

In the mother liquors, after extraction of the alkaloids by these processes, other salts, and *trimethylamine* are to be found.

Brieger sketches the history of the evolution of Ptomaines as follows: After death first there decomposes the lecithin of the body; and choline (from the reducing action of the tissues) appears. By the second day, accompanied by *neuridine*, the choline soon decreases giving rise to *trimethylamine*; the neuridine increases, the intestines yielding the greater part of it, and other tissues but little. Choline had disappeared by the 7th, neuridine not before the 14th day (these two substances are not poisonous except in large quantities), so that during the first two days of putrefaction there is nothing venomous. *Cadaverine* increases throughout the whole period of decomposition, and is ordinarily accompanied by *putrescine* and *saprine*. The really strong poisons do not develope till after a fortnight—*mydaleine* only after three weeks. This latter injected in small quanties produces (rabbits and guinea-pigs) catarrh of mucous surfaces, dilatation of pupils, and pyrexia; half a centigramme kills a guinea-pig very rapidly. A cat dies similarly with violent gastro-intestinal inflammation and its symptons. To resume, the alkaloids produced during human decomposition, in order of appearance, are as follows:—

Choline $C_5 H_{15} N O$
Neuridine $C_5 H_{14} N_2$
Cadaverine $C_5 H_{16} N_2$
Putrescine $C_4 H_{12} N_2$
Saprine $C_5 H_{16} N_2$
Trimethylamine $(C H_3)_3 N$
Mydaleine ?

Pepto-toxine.—Powerful poisons arise in the putrefaction of *fibrin*; Brieger studied these as follows:—Two hundred grammes of fibrin were submitted to the action of gastric juice for 25 hours. The peptones were not decomposed. After evaporation to a syrup, this was extracted with alcohol, twice; and, what remained, with acetate of lead; on decomposing with $H_2 S$, shaking with ether, evaporating, extracting again with alcohol, evaporating, and then dissolving in water and filtering, a solution was obtained containing the poison. By aid of a vacuum, crystals were produced, soluble in alcohol, insoluble in ether, benzole, or chloroform; strongly resisting chemical agents. A few drops of thin diluted watery solution kill a frog in 15 minutes; $\frac{1}{2}$ gm. of the syrupy solution kill a rabbit a kilogramme in weight. *Pepto-toxine*—Brieger's name for this body occurs also in decaying albuminates, but only within the first week of putridity.

Neurine.—This alkaloid may be, according to our Authors, obtained from the mother liquors after extraction of neuridine, by boiling with animal charcoal, evaporating, treating with alcohol till colourless, forming a platinum double salt, and decomposing it with $H_2 S$.

It forms very delicate needleshaped crystals and is intensely poisonous. Two or three m. gms. kill a frog with paralysis. The *hydrochlorate* is as poisonous to animals. It brings about profuse secretions, diarrhœa, quickened respiration, convulsions, thus resembling *muscarine* in action. The antidote is atropine. It is identical with the famous base Vinyl which Wurtz formed synthetically before its occurrence had been noticed in nature.

Brieger has found in the putrefaction of fish (mackerel) a poisonous base of the same composition and action as *muscarine*; in that of cheese, and flour paste, he met with *neuridine*, and in the latter a substance also resembling muscarine; from great decomposition he obtained *dimethylamine*.

While these poisons are produced in the splitting up of the complex molecules of the tissue-compounds by pepsin, and microbes, it is interesting to see how the product varies, of the same bacteria acting on different materials. Thus the bacteria of decomposition produce from meat, *neurine*; from fish, *muscarine*.

Brieger asked whether bacteria from a pure culture would produce Ptomaines; and sought out what were the alkaloids produced by those of a given malady. With the bacilli (typhoid) of Eberth, grown on meat peptone in large flakes no "putrefaction" occured; but an alkaloidal base was obtained, in small quantity, of slowly toxic properties, producing, in rabbits, increased secretions, and frequency of respiration, paralysis of limbs, which were too feeble to support the animals; and then dilated pupils, increasing weakness, feeble respiration, diarrhœa, and death in 24 hours. [Is not this a portrait in miniature of a fatal typhoid attack? And does it not appear as if, were we to reason from this experiment, in typhoid certainly it is the product, as well as the presence, of the bacillus which is the effective agent?] This base was a *triamine*. Brieger found also a ptomaine during the products of culture of the Streptococcus. Nencki, and Babes, following Brieger's methods, were unable to detect any alkaloids in the culture products of the charbon bacillus.

A table of the recent literature of the subject is given at the end of the chapter; but no reference is made to English observers.

LEONARD BRADDON.

EVISCERATION OF THE EYE IN A CASE OF SUPPURATIVE PANOPHTHALMITIS.

(Reported by A. H. Johnston.)

M. A. G., æt. 32. Admitted into Ruth, No. 30, on March 1st, from Dr. Bedford, under care of Dr. Brailey.

When eight years of age had some lime thrown in right eye giving rise to opacities and eventually loss of sight. Attended under Mr. Bader, iridectomy being performed. Last attendance in 1870. Since this time, eye, though blind and somewhat shrunken, remained quiescent until a week ago, when it quickly became painful and swollen, continuing to get worse since. No previous attacks of inflammation.

On admission.—Eye immovable and proptosed, covered by the lid, which was much swollen, red, and erysipelatous looking. Conjunctiva extensively red, thickened, and bathed in purulent matter. Cornea opaque and sloughy looking. Much pain and tenderness. Severe pain in eye and head.

March 2nd. Under $C H Cl_3$, evisceration was performed. The sclerotic was cut round just external to and parallel with the corneal edge. The iris and choroid, together with contents of the eyeball, were carefully separated from the sclerotic with a large scoop. The lens was shrunken; the vitreous greenish and glassy; the choroid thickened; the retina thick, opaque, and soft.

The cavity enclosed by the bare sclerotic was washed out with an aqueous solution of hydrarg. perchlor. 1 in 1000, applied by a syphon tube. Blood very soon ceased to ooze into the cavity and the sclerotic was seen white and shining. Three silk sutures were inserted so as to bring sclerotic and conjunctiva together in a horizontal line.

Ordered lotio acidi boracici to use every two hours, Inject. morph. gr. $\frac{1}{6}$ h. s.

March 3. Swelling of lid, and redness much less than before the evisceration. Little discharge. Slept comfortably. Slight pain in back of head only. No fever.

March 6th. Swelling and redness of lid rapidly decreasing and now nearly normal. No pain or fever. Stitches loose, some healthy looking pus round them, one removed. Bowels sluggish.

March 9. The patient is now up, eating and sleeping well, and free from pain. The lid is merely a little lax and flabby but not inflamed. The remaining stitches, being loose, are now removed.

There has been no union of either sclerotic or conjunctiva and consequently a rounded aperture some $\frac{1}{12}$ inch diameter, corresponding to the operation wound, is visible. The cavity of the sclerotic is much encroached upon by foldings of its walls. The internal surface of these look white, and yield no discharge to syringing except a few flakes of purolymph.

March 13. Case still going on well.

The case will probably progress continuously to complete contraction of the cavity and obliteration of the aperture.

Remarks by Dr. Brailey.

This more recent operation will doubtless take the place of enucleation in cases where the choroid is free from inflammation or morbid growths. But in this case we have ventured to do it, and that with success, in a case of suppurative panophthalmitis. In this condition any operation was formerly regarded as dangerous, in view of a possible suppurative meningitis, and is still so regarded on the Continent. But such

complications are extremely rare after enucleation and there is at present no reason to think them more common after evisceration. It may be remarked that, though more than thirty deaths are on record after enucleation, this number bears but an extremely small proportion to the total number of enucleated eyes. A case of enucleation now in Barnabas, No. 6, serves to shew that the symptoms attending this operation are as severe as these following evisceration.

This case is an illustration of the superior proneness of defective eyes to spontaneous suppurative changes.

The non-union of the edges of the wound is exceptional and must be attributed to the presence of pus in the eye prior to the operation.

Sport.

CRICKET.

Under the Presidency of A. E. Durham, Esq., F.R.C.S., the Annual General Meeting of the Cricket Club was held on the 3rd inst., in the Surgical Class Room.

After a cordial greeting had been exchanged between the President and the Meeting, Mr. Harry Bolus read the record of last season, which was, on the whole, a very successful one. Applause greeted the announcement that the Cup had been won by Guy's for the third year in succession.

Mr. Durham's Bowling Trophy, for the best analysis, was won by Mr. C. D. H. Rygate, with the fine average of 7·39 runs per wicket.

The batting averages were good, Mr. Scott heading the list with 27·6 per innings.

Mr. W. S. Brown then read the Treasurer's Report, and in announcing a deficit of 4 guineas, expressed a hope that an effort would be made to raise this sum by means of a Smoking Concert. Upon the close of Mr. Brown's report, Mr. Durham handed to him a cheque for the £4 4s. deficit, this generous act on the part of the President being greeted by prolonged cheering, giving as it did yet another proof, if proof indeed were needed, of the kind interest taken by him in Guy's Cricket Club.

Then followed the Election of Officers for the ensuing season, viz:—

President—A. E. Durham, Esq., F.R.C.S.
Captain—W. J. Scott.
Hon. Sec.—Harry Bolus.
Treasurer—A. D. Fripp.

Committee—W. S. Brown, J. D. Cruickshank, C. D. Rygate, F. M. Russell, E. J. Mitchell, W. Featherstone, W. Webber, S. S. Wallis, F. Colclough, T, S. Jackson.

Upon the motion of Mr. Scott, a 2nd eleven was approved of by the meeting. Mr. J. Fawcett was elected Captain, and Mr. Haslom Hon. Sec.

Mr. Colclough then proposed "that the Captain and Hon. Sec. be elected at a Special General Meeting to be held after the final Cup Tie in each year."

Carried *nem. con.*

A vote of thanks to the President terminated the Meeting.

The following is a list of the fixtures for the coming season:—

Date.	Against.	Ground.
May 7th, S.	Reigate Hill ...	Reigate Hill.
„ 11th, W.	Surrey Colts ...	Kennington Oval.
„ 14th, Th.	Crystal Palace ...	Crystal Palace.
„ 21st, S.	Brentwood ...	Brentwood.
„ 26th, Th.	Richmond ...	Richmond.
„ 28th, S.	Mitcham ...	Mitcham.
June 1st, W.	Chiswick Park ...	Chiswick.
„ 4th, S.	Streatham ...	Streatham.
„ 8th, W.	Bickley Park ...	Bickley Park.
„ 11th, S.	Beckenham ...	Beckenham.
„ 18th, S.	Mitcham ...	Mitcham.
„ 23rd, Th.	Blackheath ...	Blackheath.
„ 25th, S.	R. I. E. C. ...	Cooper's Hill(2.30)
July 2nd, S.	Pallingswick ...	East Acton.
„ 9th, S.	Southborough ...	Tunbridge Wells.

INTER-HOSPITAL CHALLENGE CUP.

1st Round.

May 24th ...	King's	*v.*	Charing Cross.
„ 26th ...	London	*v.*	University.
„ 27th ...	Guy's (holders)	*v.*	St. Mary's.
June 2nd ...	Westminster	*v.*	St. Bartholomew's.
„ 3rd ...	Middlesex	*v.*	St. Thomas'.

FOOTBALL.

Rugby Football Notes.

To-day the Forty-third Season of the Rugby Football Club comes to a close with a match between our second 15 and Blackheath second. Throughout their long list of matches, our second have only been beaten twice (by Middlesex Wanderers second and Civil Service second), a performance which justifies the much stronger list that has been arranged for next season.

The first 15 season collapsed directly after our defeat by Thomas' in the 3rd Round of the Cup Ties. We had to play Dulwich College the next day, but most of the men cried off before leaving Richmond, and but for the able support rendered by our second 15, whose match had been scratched by their opponents, we should have made a sorry show. With only four of the first team playing, we were able to win by a good deal more than the score at the end would seem to indicate—2 goals to 1 goal and 1 try.

We were in their 25 nearly the whole of the first-half, during which time Russell dropped a goal, and Thompson successfully brought off a very difficult place from a try by Moyse. After change of ends the game was more

even, each side getting behind twice. One of their tries resulted in a goal, but both of ours (by Moyse and Park) were disallowed. The second element showed up strong throughout; Park and Thompson at half being particularly good.

Unfortunately in this match F. H. Russell injured his erector spinae, and has been confined to his room ever since. The damage is covered by insurance.

On the following Saturday, March 5th, we were to have played Blackheath, but so many of their team were going to Manchester, to see the England *v.* Scotland match, that they had to scratch.

The same fate befell our next match *v.* Royal Veterinary College, as it clashed with the "Football Festival" at the Oval.

Altogether the first 15 have had a fairly successful season. We have played 19 matches, won 10, lost 6, drawn 3. Four matches have been scratched—R.V.C., Blackheath, and two in January on account of the frost—R.V.C. and Cambridge Wanderers. But for the fact that we have lost the Cup, we have every reason to be pleased with the result of the season. It is not particularly good form, when beaten, to put it all down to bad luck; nor did we talk much about our luck last year, for it was good, and without it certainly should not have won the Cup; but with a little luck we, as certainly, should have made a much better show this year. Fagan's dropped goal in the London match; Jordan's disablement in Thomas' match; and the fact that the Thomas' try would have been disallowed if the appeal, which two of our men raised against it, had been heard by the umpire, are quite enough to account for our not being still in the running.

But for the snowstorm which prevented our play last Tuesday we should have surrendered the Cup ere now; as it is, however, we are still uncertain as to who are to be the next holders. Middlesex have never won it yet, nor have they ever been in the final, and on that account, as well as the encouragement it would give to smaller Hospitals, they have many well wishers. A victory for Thomas', though, would probably be the most popular result. They have only been in the final twice, 1876-7, when we beat them, and 1877-8, when they won the Cup. They had a lot of luck against them last year, and should they win this time it will, of course, better our position in the Competition.

A prominent feature in next season's card will be a short trip northwards to meet two very strong clubs. Bradford on Saturday, November 19th, and Wakefield Trinity on Monday, November 21st. Unless intending players come and show in the opening match much better than they have been doing of late years, it will be impossible for the captain to get his team at all together so early in the season, much less by October 26th, when we play Cambridge University. There will be several vacancies in the team, as we lose Russell, Rygate, Cuff, Raw, and Joslin, and there will be only three weeks wherein to choose the new men, so that we shall have to rely a good deal on the form shown in the opening match.

ASSOCIATION.

Surrey County Association Challenge Cup.

Guy's *v.* Lyndhurst.—This tie, in the third round of the above, was replayed at Wandsworth Common on March 8, on a ground kindly lent us by the Casual's F. C.

Winning the toss we elected to play with the wind in our favour, and before the game was far advanced Holman scored a goal. Although we pressed Lyndhurst very much, nothing further was scored during the first half. Shortly after changing ends Vigers equalised by a shot from half-back, the ball hitting the post as it went through. During the last quarter-of-an-hour we had decidedly the best of the game, and although we obtained several corners no advantage was taken of them, and at the call oi time, an extra half-hour had to be played.

During nearly the whole of this time we acted on the offensive, but were unable to score, and the game ended in another unsatisfactory draw—one goal each.

Guy's—H. B. Bolus (goal); A. C. Roberts and G. W. Mitchell (backs); E. J. D. Mitchell, W. E. Sturges-Jones, and C. G. Roberts (half-backs); W. Winslow (centre): F. H. Brown, E. W. Sharman (left); H. J. Holman, A. T. Brown (right); umpire, J. H. Prall; referee, T. T. Bradbury (Dulwich F. C.).

This tie was replayed on Saturday, March 12th; the Casuals again being kind enough to place their ground at our disposal.

Lyndhurst won the toss, and played with a strong wind in their favour. The first half-time, owing to the good defence of our backs, however, they were unable to score.

On changing ends, their right wing dashed away and crossed the ball to the left, and these two not being reached, Lightfoot had no difficulty in kicking a goal, the ball hitting the cross-bar on its way. From this to the end of the game we played up hard, and Lyndhurst hardly ever became dangerous. Holman landed a goal soon after the ball was re-started, and directly afterwards added another.

A series of corners were given us, from two of which, well placed by Mitchell, Holman kicked goals; and just before the whistle sounded, Sturges-Jones raised the score to 5 goals to one.

Our team was the same, with the exception that H. Webber kept goal, and Sharman played centre, Winslow taking his place on the left wing.

There was a marked improvement in our play in the last match—the backs played better, and the forwards worked with a little more dash than usual.

We play the R.M.C., Sandhurst, in the Semi-final, on Saturday, March 19th, at Godalming, and the winners will have to meet Reigate Priory in the Final Tie.

Guy's Hospital Gazette,
APRIL 2, 1887.

"Insatiate Archer, could not one suffice?
Thy shaft flew thrice, and thrice my peace was slain."
Young.

In another part of our columns is recorded the Obituary Notice of yet another of our Physicians, torn away suddenly, dying in harness, crushed in the vigour of work and of manhood, checked and cut off in the very flower of his age, in a steady and brilliant upward career. The loss within little more than three years of three such men as Fagge, and Mahomed, and Moxon, might well have made us almost callous to what calamities Time could have in store for us again. But the calamity has come, cruel in its suddenness, and revengeful in its choice, chilling the whole School and Hospital with a new and sickening gloom, while we had scarcely begun to recover from the shadow cast by the extinction of Walter Moxon.

It is little to say that Dr. Carrington was popular; it is not too much to say that here at Guy's he was universally respected and beloved. No more kind and indefatigable a Teacher ever more successfully laboured with us in the Dissecting Room; no more painstaking and sure a Clinical Teacher or Pathologist ever conducted his clerks through the Wards or the Post Mortem Theatre. If Labour means Love then Carrington loved Guy's Hospital; if applause means popularity, then his greeting from us at all our meetings will testify what was our affection for him. And if these reflections can bring any consolation, then sincerely as sorrowfully do we recall them to those whom he loved so well, in a home which must now be heart-broken and desolate. We can say no more—for grief has little eloquence. But it is very hard, almost impossible, to find any solace or see a ray of hope. Only—"The Gods themselves in vain fight against the fates":—

Worlds on Worlds are rolling ever
From Creation to Decay,
Like the Bubbles on a River
Sparkling, bursting, borne away.
But *they* are still Immortal . . .

Carrington is dead: his brain vibrates no more, busily, to the Forces We Know; he has achieved one phase of Existence; and not in vain. Faith and Science alike hold aloft a torch in Darkness; they know no Chasms, save in Man's affections; they preach no Death; they know no ending. Leaving us a recollection of warm and generous friendship, untiring and genial kindness and affection, leaving us, too, a life to contemplate, of sterling and ceaseless, undaunted and successful labour, he has gained a Restfulness, and left us a Memory

"Stronger than Death, and smiling at the Tomb."

THE NOMENCLATURE AND METHOD OF THE APPOINTMENTS AT GUY'S.

One of the objects of the recommencement of our Gazette is to connect the Past with the Present; and I, an old Guy's man, should like to open the eyes of those now at the Hospital to a system in vogue at our Alma Mater the injustice of which they do not become aware of until it is too late to do anything to rectify it.

I wish especially to deal with the senior appointments and compare them with similar ones at other Hospitals.

Guy's men know that we have three House Surgeons, three House Physicians, two Resident Obstetrics, twelve Full Dressers, and about six Clinical Assistants; they also know that the holders of the first three are always qualified men, and that a large proportion of the Dressers and Clinical Assistants are also qualified.

At other Hospitals we find that it is the rule for each Surgeon to have a House Surgeon attached to him as well as an Assistant House Surgeon and Dressers. The House Surgeon goes round the Wards with his Surgeon, receives instructions from him, and the Dressers work under his supervision. It is an extremely rare thing for a Dresser to be qualified, they have no responsibility to bear, and are usually third year's men.

At Guy's the senior House Surgeon is the only one who has to do anything with the Wards; the two others have duties elsewhere, one in the Outpatient department, and the other in the Surgery.

Without wishing to speak disparagingly of the office of senior House Surgeon at Guy's, I would say that his position is quite different from House Surgeon at other Hospitals. He is unable to go round with each Surgeon simply because he cannot be in four places at the same time, in many cases he has never been present when the Surgeon has initiated the treatment, and if he is present the Surgeon will ignore him and address himself to the Dressers. His function is mainly to administer chloroform, to give his advice to the Dressers when the Surgeon is absent, and to make himself generally useful.

From this it may be seen that the appointment of Full Dresser at Guy's becomes a responsible and valuable one. He holds very much the same position as the House Surgeons at other Hospitals.

When he leaves Guy's he thinks that his having held such an appointment will help to procure him a Provincial House Surgeoncy or something of the kind. Great will be his surprise and consternation to find that, to all but the initiated, his Guy's Dressership ranks with Dresserships at other Hospitals. The qualified House Surgeon of another Hospital gets the post and the qualified Dresser of Guy's goes to the wall.

A somewhat, though not so flagrant, arrangement exists in the appointments of Clinical Assistant and House Physician.

The Clinical Assistants are, as a rule, qualified men, and have almost entire charge of the Patients in the Clinical Wards during the Physician's absence; they are men who have been selected from amongst the best of the students to hold a responsible position; they are, in fact, the same as the House Physician of other London Hospitals. And yet, so little does the name of Clinical Assistant convey to the lay mind (and it is the lay mind which has to be influenced to obtain appointments in the majority of Provincial Hospitals and Dispensaries) that once a Clinical Assistant was described as "Chemical" Assistant in a daily paper inquest report.

Now to another matter. It is advised in the syllabus of our School that we should strive to hold one or more of the senior appointments—very good advice of course! it comes to be a case of survival of the fittest. Ability and Perseverance survive, Mediocrity and Laziness either succumb entirely or follow behind. But is it possible under existing conditions for the former to be rewarded and get the senior appointments? I say "No," one thing more is needed and that is *money*. There are now, and have always been, good men anxious to get their Dresserships, and who have been forced to give up the idea owing to funds failing. For, what is the time the average Dresser is appointed? I do not know but that it may be sooner now that there are fewer students, but in my time it was about the end of his fourth or beginning of his fifth year. Guy's men have to make up their minds to stop five years before they can complete an appointment that students at other Hospitals can complete in four!!

If the Dresserships are given to Fifth year's men it follows that other senior appointments must be filled by sixth or even seventh year's men, and I can specify a case of a sixth year's man applying for Resident Obstetric and being rejected in favour of men senior to himself, one a F.R.C.S., and the other M.B., London.

Some London Hospitals limit the appointments to students of five years and under, and make it a rule of never allowing the same man to take the House Surgeoncy and House Physicianship as well. Both these men who ousted the sixth year's man had held our H. S. and H. P. At Guy's there is no limitation of any kind provided one has the cash to hang on.

It may be very good practice for these "favoured and gifted few" but it does not increase the knowledge of the general run of students, and is injurious to the status of the Hospital—for the prestige of a Hospital is kept up by the position of its students on Honours and Pass lists, and if a man has to pass his examination before he holds these valuable appointments the knowledge he gains by them comes too late for the prestige of the School.

"Ah!" my critics may say "but Guy's men always do well at examinations and turn out good practical men," but I would answer that, considering their opportunities, they ought to do better still, and I am sure if these methods were

altered we should carry off more Exhibitions and gain more Honours at the London University than at present.

The large number of Guy's men who take the M.D. London within a very short time after the M.B., shews that some go up for the M.B. too late, whilst it is equally certain that many go up too soon. That is to say—some go up before holding senior appointments and others wait until they have held them; what we want is a middle course so that men will not have to wait so long before they can get the appointments.

Those who wait until they have done the senior appointments go up for the M.B. well stocked with good practical knowledge, but not of the kind needed to come off well at an examination such as the London M.B. A knowledge is here required of a large range of subjects and mostly subjects that spoil by keeping.

They are "crammed," say during the fourth year whilst waiting for the senior appointments, and forgotten again before the time for M.B. comes. If they had had the opportunity of doing the appointments and cramming at the same time they would find themselves better able to "disgorge" at the examination.

It is not within my power to point out the way these abuses can be remedied, I only draw attention to them and leave it to others who are on the spot to suggest their practical treatment.

An Old Dresser.

HARMLESS HÆMOPTYSIS.

There are few occurences so destructive of the mental quietude of a person who believes himself to be in good health as the sudden discovery that he is spitting blood. And the extent of his alarm is generally in direct proportion to the amount or the duration of the hæmorrhage. But however slight it be, its first appearance invariably creates a feeling of uneasiness and indefinite fear, which, in most cases, will, sooner or later, result in a visit to the doctor, to ascertain for certain whence the blood comes, and what its coming portends,

To very many people the occurrence of hæmoptysis represents the inevitable onset of consumption, and no assurance of medical experts to the contrary will suffice to clear their minds on this point. But a very moderate amount of medical experience is enough to teach the fallacy of the popular idea, and to lead every cautious man to withhold his positive opinion until he has made a searching investigation into all the attendant circumstances in the case before him. In the every day practice of the out-patient room patients are constantly presenting themselves with a history of blood spitting of recent or of long duration, sometimes exhibiting specimens of their blood-stained sputa in support of their often highly coloured narratives, and yet in such cases it is no rare thing to find no evidence whatever of pulmonary or cardiac disease. Where then does the blood come from? To answer this question with accuracy involves the study of a number of small and perhaps trivial considerations. The time at which the bleeding occurred is of importance. Very commonly indeed, when persons with healthy chests have brought up blood, they have done so the first thing in the morning. Sometimes the mouth is found full of blood on waking. The source of the hæmorrhage in these cases is to be sought in the mouth itself, and will generally be traced to the gums. Or a short fit of coughing comes on when the patient first leaves the warm bed for the cold air of the bedroom, and brings up blood either mixed with mucus or in a fluid or a clotted state. Cases are by no means rare where this slight amount of bleeding is a daily occurrence for weeks, months, or even years. Where no sign or symptom of actual thoracic disease can be traced, it is evident that the blood must come from some part of the upper respiratory tract. Why should these parts be so ready to bleed. One reason is this—the mucous lining of the air passage from the anterior nares to the upper part of the trachea is in itself highly vascular, and is traversed, in some cases, by vascular trunks of various size but of very superficial position. In some patients the vessels may be seen on the posterior wall of the pharynx projecting so prominently as to give the idea that they run on the surface of the membrane and not within it. On the epiglottis also they may be observed with the laryngoscope standing out in bold relief. These vessels, like those within the nose, would seem to be liable to periodical bleeding which may come on, as some forms of epist axis are apt to do at regular in-

tervals, dependent upon general states of the body of which we at present know very little. Profuse and fatal hæmorrhage in cases of phthisis is very prone to come on in the small hours of the early morning when the tide of vitality would seem to be at its lowest ebb, and it may be that the same bodily condition is productive of passive hæmorrhage in other parts as well. These superficial vessels of the nose pharynx and throat are sometimes subject to slight degrees of varicosity, and the fact may frequently be noted that one or more of them is larger and more engorged than those about it. From their anatomical position, therefore, it would almost seem as if they were intended to suffer occasional rupture. Many patients, and especially women of middle age, will declare that they are in the habit of bringing up "pieces of flesh" of a morning, sometimes after a severe fit of coughing. Most of these pieces of flesh turn out on examination to be simple blood clots more or less combined with hard and sticky mucus. These are for the most part obtained from the space immediately below the vocal cords, formed by the cords above and the tracheal walls on either side. Oozing from the posterior nares may at times take place without its occurrence being suspected by the patient; no blood making its way out of the nostrils, and this again is very apt to occur at night. Small polypoid growths or adenoid vegetations on the vault of the pharynx or in the posterior nares are the most frequent causes of such passive oozing as this, which may sometimes be actually seen to take place in the daytime, entirely unsuspected by the patient. Apart, however, from these purely local conditions, there are many cases of hæmoptysis, harmless in themselves, but alarming to the patients and their friends, which are dependent upon alterations in the blood itself. It is a very striking characteristic of almost all the so-called blood diseases that the blood has a tendency to escape from its containing vessels on the slightest provocation. Purpura, perhaps, forms the best example of this tendency, in which, for many days in succession, the blood within certain groups of minute vessels periodically wanders forth to form successive crops of petechiæ on the surrounding skin. In the simple anæmia of young women approaching their complete maturity, a similar tendency to leave the vessels of the nose and throat seems to influence the blood within them. This peculiar state of things has given rise in the past and present, and will probably do so in the future, to two common errors, one serious and the other trivial, which a little caution and care would enable everyone to avoid. The serious error is the hasty diagnosis of consumption on the strength of a cough and slight hæmoptysis in anæmic and perhaps slightly wasted young women. Such cases very frequently come before the notice of Consulting Physicians, who are asked to confirm the sentence pronounced by the over positive Practitioner in charge of the case, and too often it becomes their duty, in legal phraseology, "to reverse the judgment of the Court below." A second, but far less important, error, is the belief that periodical hæmoptysis in women with irregular menstrual functions is vicarious in its nature. Cases can undoubtedly be often quoted where hæmoptysis and menstruation have appeared and disappeared in some sort of relative order, but an equal or larger number could be cited, were it necessary, where each has taken place in the presence or absence of the other without any sort of relation being traceable between them. With all these forms of hæmoptysis however the striking feature is this:—that they seem to be perfectly harmless so far as any deleterious effects upon the general health are concerned. Were it not for the appearance of the blood itself, the patients in many instances would have no idea that anything abnormal had taken place. Where hæmorrhage is dependent upon actual thoracic disease it never constitutes the only sign or symptom. In cases of initial hæmoptysis in actual phthisis the depressing effect produced by the bleeding, even where it is only slight in amount, forms a strong and striking contrast to the apparent indifference of the system to any of the other forms of hæmoptysis of which mention has been made. But all of these, harmless in themselves, are sources of annoyance to the persons in whom they occur, and their prompt recognition by medical advisers will do more to restore the mental equilibrium of the sufferers, than all the hæmostatic drugs in the Pharmacopœia.

"B."

VIOLET-ODOURED URINE AND LEAD-POISONING.

There is nothing new in the observation of Lead in the Urine; or of its odour of violets when there is turpentine in the system. But the presence of this latter may sometimes give a useful hint in an obscure case, as it did in the following:—

Case.—A man, aged 35; complained of debility, loss of appetite, headache; and severe pains in the loin, and sometimes the calves. Bowels regular; chest sound; tongue flabby and a little furred; teeth very dirty; Urine high coloured, full of urates [cold weather] but without albumen. No pain in hypochondrium; a little flatulent. This was result of first examination: what am I to prescribe? I am inclined to consider it a case of Lithiasis probably. One does not remember everything needful, and I had not asked his Trade. But I happened to smell the urine, and detected a faint odour of violets in it—turpentine. Was he taking any medicine? No. The only other way he was likely to get turpentine, I thought, was by working in it in some way, and this led me to think of Painting. He was a painter.

Re-examination.—Muscles of calves and forearms weakened and tender; external popliteal and ulnar nerves tender to roll under fingers; dirty teeth shew a well marked blue line. Diagnosis is now altered, and stands Peripheral Neuritis from Lead in an early stage.

Treatment.—Baths, diaphoretics: and Pot.-Iodidum. He became almost quite well in three weeks, being very much relieved in a day or two. He tells me that they (the Painters) have often noticed the Violet Urine; that the odour especially appears when they are out of sorts; and is almost certain to appear after a drinking-bout: so that their joke among each other, when the odour is perceived, is "Where did you buy your violets last night?" While the presence of the odour, or of pains or colic does not seem to be so directly associated with actual working in Lead and Turpentine Paints at the time. From this it appears that Turpentine possibly acts cumulatively; and that the presence of Alcohol in the system favours its excretion by the kidney? Unless we suppose that the Turpentine is, as a rule, broken up in the system and not excreted; but that under some damaging effect of Alcohol on the kidney it becomes excreted by the latter. Viewing the solvent action of Alcohol on Turpentine, I should think, *à priori*, it would help its excretion, as it does itself pass out through the kidney. But while favouring the excretion of Turpentine, it does not of course follow it would help that of Lead. *À priori* again, it would seem more probable that, as the Tupentine with which the Lead enters the system, is parted from it, the latter should be deposited in the tissues: and colic, neuritic, and muscular pains should become more troublesome. As the patients are generally worse, when they have "the Violets," this seems to be borne out Clinically. But if the Turpentine dissolves the pigment, not merely holds it in suspension, its excretion ought to favour that of the Lead; and Alcohol would be useful in treatment. One way, or other, the question seems easy to settle by further observations.

LEONARD BRADDON, F.R.C.S.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Sir,—I can find no case similar to the following in surgical literature:—

J. N., æt. 24, a policeman, had a discharge from the umbilicus seven months ago, which disappeared on bathing with cold water. Three weeks ago he came to me with another discharge, which he said was similar to the previous one in character but worse in intensity. He complained that the belt which he wears over his tunic pressed on it and caused him pain. A probe passed in easily for 1¼ inches and then met with resistance. I inserted the blades of a long pair of spring forceps into the umbilicus and dilated it. There was a cavity as large as the end of his thumb, and at the bottom of it was a dark sloughy-looking substance. This I seized with forceps and withdrew, and discovered that it was a bundle of hairs about 1½ inches long, thick and stiff. They were curled up at the bottom of the cavity and matted together with a purulent sebaceous substance of very foul odour. Syringing with carboli

lotion, and finally dusting with powdered oxide of zinc, soon stopped the discharge, and relieved the pain.

The point of interest is, how the hairs got there. His abdomen is partially covered with fine curly black hair, whereas this was a neatly-arranged bundle of light-brown coarse and stiff hairs, which he assures me he cannot account for in the least, but which I suppose must have caused the similar discharge seven months previously. Is it possible it was anything of the nature of those congenital Dermoid structures?—I am, Sir, yours very truly, FRED. W. FARR.

Kennington.

PATHOLOGICAL NOTES.

Malignant Stricture of Sigmoid—Perforation—Fæcal Psoas Abscess opening in Left Groin.

Male, æt. 37. Had inflammation of bowels thirteen years ago. For last three months when travelling in Holland had pains in left inguinal region, neuralgia of corresponding thigh, attacks of diarrhœa and constipation, &c.

Five weeks ago swelling appeared in left thigh; became very ill; rapid wasting; no sickness.

Admitted with acute abscess in left Scarpa's triangle which was opened and drained. Contents fæcal.

Died on 11th day of gradual exhaustion.

Post Mortem.—Old pleuritic adhesions with broncho-pneumonia on both sides, and a good deal of thick pus in the tubes. Large mass ef growth in sigmoid invading the psoas and reaching to the spine. Secondary deposits in the mesenteric glands. Matting of small intestine to sigmoid and descending colon. Large perforation in descending colon just above the growth communicating with an abscess sac beneath the peritoneum, which had travelled down the course of the left psoas behind the vessels, and had been opened in left Scarpa's triangle external to the vessels. It contained fluid fæces. Colon full of scybala. Liver large and fatty. Other viscera normal.

Remarks.—This case was diagnosed as spinal, and had been treated as such on the Continent. The neuralgia in the thigh was evidently due to pressure of abscess on lumbar plexus. Under the microscope the growth proved to be a typical cylindrical epithelioma.

Carcinoma of Rectum and Jejunum—Distension Ulcers of Cæcum—Fæcal Extravasation—Peritonitis.

Female, æt. 56. Had stoppage of bowels eight months ago for nearly a fortnight. This was relieved by a purge, and she has had diarrhœa ever since till three weeks ago. Latterly there has only been a mucous discharge from the rectum.

Admitted with marked distension of cæcum, griping abdominal pains, much emaciation. Colotomy performed but she died a few hours later.

Post Mortem.—Long carcinomatous stricture of rectum commencing about an inch from anus. Not much ulceration. The bladder was involved, especially the left side through which pressure was exerted on left ureter, partially obstructing it. The whole colon was much dilated and its walls hypertrophied, but the greater part of the distension had fallen, as usual, on the cæcum, which extended into the middle of the abdominal cavity. The transverse colon made a wide bend downwards towards the pelvis, and the sigmoid was equally curved. There was extensive ulceration in the cæcum, only the peritoneal coat remaining in many places. Fæcal extravasation had occurred, setting up a diffuse suppurative peritonitis.

Pelvis of left kidney distended, with early consecutive changes in the cortex.

There was a second stricture, situated 1½ feet from the cæcum, in the small intestine, the calibre only admitting a No. 12 catheter. This had caused no distension, apparently from the fluid condition of the fæces here.

A few secondary nodules in the mesentery.

Remarks.—This second stricture seems to have been produced by a deposit in the mesentery, or sevous membrane of the bowel, which in its growth had formed a broad circular band, and so constricted the calibre of the intestine. A similar case of double malignant stricture occurred about a year ago, and was shown at the Pathological Society by the late Dr. Carrington. In this, however, the second stricture was in the transverse colon—about two feet above the primary growth.

Passim.

A Sin of Omission.—We failed to include in our congratulations last week Messrs. J. D. Hughes and Rawnsley, who took respectively first and seventh places in the Navy and British Army Competitive Examination; we congratulate them now, none the less heartily.

Mr. Hailey was, by mistake, given in the Army List as Seventeenth. He took, he has written to inform us, the Eighth place in that competition; although by official error first published Seventh, and by error in the Gazette as Seventeenth.

Pilocereus is out, and Guy's men can add a treasure to their store. Mrs. Moxon has most gracefully dedicated these papers to us, Guy's Students; a compliment which increases, if it is possible for anything to increase the value of the service which she has rendered us, and still wider circles, in publishing them. Of the literary merits of these writings of our late, so beloved and brilliant Teacher we shall say little here—a notice of them appears elsewhere in our columns. It is a gladness to find how well they preserve the characteristics of Moxon's eloquent, and never purposeless, conversations, and abrupt and vivid mental flights. Two examples only:—That epigrammatic epitaph which he proposed for himself—"*He understood Nothing*"—discloses him on that self-humiliating, but lofty heighth of thought—the sincere confession, by a great mind, of the utter incomprehensibility of the Great Facts of the Vast Universe—The Ararat of the Thinker—which he shares with a Shakespeare, or a Kant—no greater minds—and on a level with Truth, after all ["*Two things,*" said Kant, "*fill me with awe: the Starry Heavens above me, and the sense of moral responsibility in man.*"] Such is an example of the paradox in which these essays, as all who knew him might expect, abound. Yet the Spirit of them is one of rigid practicalness everywhere—"It is your five senses which keeps you sane," he says: and these two sentences are the keys, we believe, to all that wonderfully blended store of his, of subtle-sailing fancies and prompt and firm precepts and actions—together the spur and the curb of his superb mental activity. Great minds express themselves very similarly; and so while Shelley sings

"Nought is but that which feels itself to be,"

Moxon says materialistically, "*It is your five senses which keep you sane.*" In the same way one might quote abundance of terse and vigorous maxims, quaintly or brightly metaphorical, that teem in this little volume. It still scintillates phosphorescently, with the light he lent it. Moxon is still *Moxonian*, though in print.

The "Nomenclature and Method of Appointments at Guy's," which appears in this number, is a contribution for which we are much indebted: drawing formal attention, as it does, to a very vital subject. We hope to receive the benefit of all our Subscribers' opinions on the matter.

BOOKS.

Pilocereus Senilis and other Papers, by Walter Moxon, M.D., F.R.C.P.

The little book, which bears the above strange title, will require no introduction or recommendation to those readers of the Guy's Gazette who ever came within the charmed circle of Dr. Moxon's acquaintance. Dr. Moxon's talk was always attractive and always instructive. You might fail to accept either his premises or his conclusion, but you could not fail to gain from a discussion with him fresh views of familiar things, and some suggestive lines of thought. And, happily for those who recollect with pleasure his brilliant conversation, the writings of Dr. Moxon preserve many of the most characteristic qualities of his talk; so that in the papers which have here been brought together we find the same subtle discrimination of differences, the same ingenious use of analogy, the same love of paradox, and the same happy argument by means of metaphor and illustration, which so often instructed, delighted, and confuted us during the lifetime of their author.

But "Pilocereus Senilis" is not only an appropriate memorial of an honoured teacher. Affectionate thought, on the part of the editor, has dedicated the book not to those only who were his pupils, but more widely, "To the Students of Guy's Hospital"; and to all students of Guy's, whether past, present or future, these papers may be commended, as containing in a small compass, and in an exquisitely readable form, the thoughts of one whose opinions deservedly carried weight upon all that concerned the character, training, and duties of a doctor. For Dr. Moxon, beside being a brilliant physician and a charming lecturer, was a keen critic and shrewd observer of men and things beyond the limits of medical thought

and medical practice, and the thoughts contained in these papers are the thoughts of one who had added to his professional learning a singularly wide and, at the same time, practical knowledge of humanity.

Indeed, in reading this collection of essays, we cannot but be reminded of a remark of Dr. Wilks, to the effect that we might have looked to Dr. Moxon to produce some work which should have advanced our art by presenting us with a Philosophy of Medicine. Perhaps he would have done so but for his well founded distrust of all "systems." At any rate there is abundant material in the essays before us, to enable us to see clearly what were his opinions about medicine as it has been, and as it is, and what were some of the dangers which seemed to him to threaten in the immediate future.

He did not like the phrase "Science of Medicine." To him medicine was rather an art which we practice than a body of knowledge which we acquire; and, perhaps, we cannot give a better summary of the teaching of "Pilocereus Senilis," than by quoting the words in which he describes the lesson of Hunter's life. From it he would have us to learn "that the value and power of a man does not consist in what he knows, but in how he knows it, and whether he can use it."

The papers contained in the volume may be called Ethical, Philosophical and Medical. But in thus naming them, it must be remembered that Dr. Moxon's mind was not built up in compartments. With him the Philosophy was never very far from the practical medicine (as any of us, who were his Ward Clerks, can testify), and his Ethics were also close beside his Philosophy; so that if we were to try to arrange the contents of the book under any such definite headings, we should find scarcely a chapter which has not some claim to all three of them.

The Ethical element may, perhaps, be said to predominate in the shorter chapters. In these the author treats in essays of quite Baconian brevity of Truth, Happiness, Charity, &c. These are but short studies of great subjects, still they afford scope for much subtle analysis, and suggestive thought.

Some of the longer essays, as, for instance, that which deals with "The Individual and his Language," and that which (somewhat in the manner of Swift) is entitled "Nothing," or a "Protest against Buttermilk," raise questions which may be called "Philosophical," or, perhaps, Metaphysical. The longest essays, most of which were originally delivered as lectures, are devoted to such questions as "How we ought to Study Medicine," "The true position and character of Therapeutics," "The relations of Biology to Medicine," and so on.

Clearly it would be impossible, within the short limits of the present paper, to offer anything like an analysis of even the shorter essays contained in the collection. Were I to do so, I should be tempted to quote such epigrammatic paragraphs as the following:—

"Medical theories are shortlived creatures made of a little dust of facts, in themselves lifeless, which some one fashions into a shape and breathes into it a little puff of himself—a breath of life that's not divine."

Again, Theorists are people who "look soberly only on conclusions, and—if I may so speak—are drunk on the premises."

Again, "Life is in nothing more mysterious than in the strange want of relation between its beginning and its end. Life comes in us by spermatozoon, and breaks down by mechanics."

But isolated quotations can give only an imperfect idea of the whole, and I must content myself with urging every Guy's man to possess himself of "Pilocereus Senilis" and to study it for himself, feeling sure he will rise from its perusal a wiser and a better man than when he sits down to it.

In so saying, however, it is by no means intended to imply that the reader will invariably find himself in agreement with his author. For instance, the attitude which Dr. Moxon (in common with Carlyle and Ruskin) adopted toward modern Biology is one with which, in all probability, very few readers of the present generation will sympathise. To Dr. Moxon it appeared that "Modern Biologists seemed to be spoiling the knowing thing for the sake of the knowledge acquired." Probably, however, by this time, most of the present generation have long ceased to feel, if, indeed, they ever did feel, that Modern Biological doctrines "affect the value of their individuality." Some of us, in fact, may even be disposed to deny that there is any necessary connection between the "value of our individuality," and *any* Biological doctrines whether ancient or modern.

Disagreement with an author's opinions is, however, no hindrance to the profitable study of them. In the study of books, as in the study of nature, there is a method of difference which is no less fruitful than the method of agreement, and our indebtedness to a teacher cannot be measured merely by the extent to which his views and our own correspond. In this, as in other matters, "the value and power of a man does not consist in what he knows, but in how he knows it, and whether he can use it," and in "Pilocereus Senilis" the reader will never fail to find abundant knowledge, tempered by brilliant originality and keen humour, and always loyally employed in the best interests of Medicine.

"R."

A Manual of Midwifery, by A. L. Galabin, M.D. J. and A. Churchill, 1886. Crown 8vo.; 776 pp.; Eleven and Threepence, net.

A critique upon the same. Lancet, Nov. 13th. 1886.

We have long intended to bring before the readers of the Gazette, a few words in praise of this most excellent Manual. For while, probably there is no domain of Medical Literature which is so often traversed, and so minutely worked up as Gynæcology. Certainly there is none which offers such difficulties to the Student, which have been rather added to than alienated by books on the subject, as Midwifery. Not only do Gynæcologists as a rule yield to that feeling which unfortunately leads all classes of specialists to exaggerate the importance

and increase the complexity of trifles, the more in their own field the more restricted it is, but hitherto we must say we have failed to come across any text-book on Midwifery and Diseases of Women, that has been at the same time complete, clear, readable, and succinct.

Playfair is elegant, but not sufficiently comprehensive. Leishman is sound, but strikes one as not sufficiently modern, a suspicion which is fostered by quaint archaisms of language. Lusk is highly praised, but needs translating into English; Roberts is laboured; Schrœder Teutonic; Barnes emphysematous; Swayne and Reynolds are but condensed milk; and Burton, we must confess, we have not read because it reminds us of the Anatomy of Melancholy. Hence we long despaired of, while we waited for a Manual that should be at once clear to instruct, learned to be relied upon, impartially collating to judge by, and written in English that was readable. Remembering Dr. Galabin's most readable, yet unrememberable, Guide to the Diseases of Women, it was with some apprehensiveness that we set forth upon the "Manual of Midwifery"; but we may at once say that, in our opinion, it is far and away the best text-book we have read, and will, we believe, be the best one there is to read for a long while to come. And three great qualities make it thus readable. In the first place it is written by a thorough master of the Art of Midwifery; secondly it is broad in views as well as accurate in reasoning; instead of being dogmatic upon undecided questions, the author gives opposite sides of an argument fairly, and only hints at conclusions; lastly it is written in English, which very few English Medical Works are, a quality which contributes as much as anything to its admirable lucidity. While we strenuously recommend all Students to read this, which is a rational exposition of all the *Principles* of Midwifery, we can equally recommend it to Practitioners as an epitome of the modern state of obstetrics, most enjoyable to read, and classical in style. The chapters on the Pelvis, its development, and its deformities, are masterly. That on the development of the Ovum, contains all the most interesting, and the few useful facts gleaned out of a most barren and almost useless section of study, Embryology, and all which one need even for examination purposes know; this is, moreover, the only account, in any Midwifery book we have read, in which the Embryology travels intelligibly on all fours with the stages of change in the Mother.

An excellent innovation in the nomenclature of positions of the fœtus is made, when the Author names Face Presentations by the Forehead. One can thus keep an ideal fœtus in the same series of positions (mentally) for all presentations; and so avoid the confusion, which is inevitable by most men, arising from numbering the positions firstly according to the occiput, and then according to the chin; a procedure reminding one of a conundrum: If the Chin is the Occiput, how many times does No. 4 turn into No. 1?

Two brief chapters give all that is really known about Albuminuria and Eclampsia in Child-bearing; in which questions Dr. Galabin is happily discreet in not becoming didactic. The great field of Puerperal Fevers is left well ploughed over, upon which the reader may sow and from which he may reap his own theories. The rest of the Book is equally judicious; there is nought too little, and nought too much.

The work, of 776 pp., is followed by two masterly essays on the Nægele Obliquity of the Head, and the Choice of the Leg in Version for Shoulder presentation. Dr. Galabin's clear and accurate exposition of the mechanical disadvantages of seizing the diagonally opposite leg, instead of the nearest one, is something to be thankful for, melting away as it does the old theory which has long been a bar to the proceeding which common sense suggests, which is practically more easy and effectual, and which, indeed, is generally performed even where the other is intended.

Thus much said upon the best book written as yet upon Midwifery, we cannot help noticing not so discerning a review of the same work in a recent number of the *Lancet*. Chiefly because that Review, professing to show the needs of the student, we think that the views actually held by a student may interest him.

In the first place, to notice some mistakes in detail, this writer says—"Fig. 40 (p. 66) contains a serious error, as it professes to show the chorion stripped off the fœtal part of the placenta as far as the umbilical cord." On referring to the description of the figure, however, we find the words, "The *amnion* and chorion raised from the surface of the placenta;" "and chorion" is here clearly a *lapsus pennæ*; but this does not justify the assertion of the graver error by the Reviewer, that the chorion is represented alone, and is confounded with the amnion. The chapter on the Management of Normal Labour, containing every direction which is really needful, is found fault with; it "does not bear the impress of familiarity with the details of the subject;" while, of course, the insinuation here is as absurd as puerile, it is this very absence of fulsomeness of detail which constitutes the great merit of this, as all the other, chapters. "The rules for the expulsion of the trunk might be improved." This reminds us of Goldsmith's recipe for the jackass who desires to pose as a critic, to say, "The picture would be better if the Artist had taken more pains with it." "The examination of the placenta," says the critic, "is far too cursory." And here we gain a clue to the character of the Reviewer. He would have an Obstetrician carry a measuring-rod, and a pair of scales, and calculate in decimals the size and weight of the clots passed, and the placenta; a Nautical Almanac, predicting the atmospheric pressure on the abdomen, cord, &c. and a polariscope, to estimate the amount of sugar in the Liquor Amnii. We are suspiciously reminded here of the famous question, at the last M.B., Lond., "How would you proceed to examine the placenta?" (By your eyes and fingers, of course; but we doubt if this was the answer). Dr. Galabin says, "The Physician must carefully examine the placenta after its removal, to see that its uterine surface is complete, and that the double layer

of separable membranes, amnion and chorion, is present." Could Common Sense wish more? But our Reviewer evidently does not credit us with that quality. He also thinks that the "directions for the application of the Binder *might be improved*." Shade of respected Mrs. Gamp! If a man cannot place on, or directing the placing on of, a binder—that honoured Joss of feminine superstitions, so unnatural in theory, and luckily so ineffective in practice—he certainly will never gain that sublime pitch of Obstetric Skill from a book. A little further on we are told to regard, not what is best for the patient, may be in spite of herself, but what the patient will think of you, in spite of what is best for her.

We cannot notice the numerous places when our Reviewer does not "agree." They are immaterial. He says "it has been *proved* that dry treatment—(for the cord)—is best and safest." This is without considering Antiseptics. The next paragraph contains merely some quaint logic. "We do not yet know," our Reviewer confesses, "the pathology of the affection"—Eclampsia. He then complains that the student "will miss the strong guidance in the right direction which he will look for." This no doubt is, as Lamb irreverently said Coleridge's metaphysics were, "only his fun." How, if the author know not the pathology, shall he guide the student to it? But we think that in this most clear, brief account of a very confused affection, a great deal of light is thrown upon it. While The Critic, *mirabile dictu!* complains of the details, we are glad of them. Dr. Galabin says the individual convulsions resemble exactly those of Epilepsy, except that the cry is never present. And this is, we think, quite enough for "Differential Diagnosis," seeing that Epilepsy means hardly so much one disease, as a symtom, an outbreak, common to perhaps many. In a case really occurring under conditions of Eclampsia, no doubt History will give the clue, which name should be tacked on to the affection—the result is inconsequential. The admirable discussion by our Author of the treatment of Placenta Prævia he cavils at, and quibbles over; while he purposely ignores the fact that in some cases one is called to, the os is not dilated and needs dilatation, and admits of temporising, and in others it is already partly dilated, and one can at once have recourse to bipolar turning, and as yet others immediate version alone is necessary. Our Reviewer proceeds to sum up Dr. Galabin's suggestions honestly and intelligently enough, and then professes to fail to understand them, concluding by admiring himself in a glossy sentence which he has constructed to sum up the whole subject, but which is unfortunately too dogmatic for "the student," who prefers intelligent discussion, in spite of our Critic's sour aspersion to the contrary, to the best and plainest aphorisms, however orthodox, and however terse. The rest of the Critique rather "tails off." An objection is made that the description of Cæsarean Section does not include Sänger's improvements. Sänger's "improvements" are greatly over-estimated. The principles of the Operation are well laid down; the rest ought to be supplied by the *νοὺς* of the Surgeon. The Reviewer says "We will put the main question in a nutshell." This of Puerpual Fevers! Seeing that a woman with the parturition-sore offers a happy hunting-ground for any bacillus that settles there; and that the varieties of microbes, and their tribes, appear to be as numerous and as vagrant as the beasts of the Forest; and that these two facts result in—among others—Puerpual Fevers, our Critic must be very clever if he puts the question "in a nutshell." We are afraid he will find his work as difficult as Pandora's was. An objection to the possibly Septic Origin of Phlegmasia is, he says, "the almost certainly good Prognosis of the complaint. Do Chicken-pox, Necrogenic and Venereal Warts, Erysipelas, &c., never get cured? or what is the meaning of *septic?*

A few typographical errors are noticed by our critic, who has hunted them up, and details them with great unction. "Forceps," he says, "is a singular collective noun, and means a pair of tongs or pincers." This is truly a marvellous piece of information: but, as Captain Cuttle says, its bearing "lies in the application of it." If it means that "Forceps" may not be followed by a plural verb, we are afraid all the best English Authors are against our Critic; who would doubtless rejoice in a sentence such as "The Forceps is a species of tongs which is applied as the pincers is." *Weed*, he says (*Ephemera*, mild milk-fever), ought to be spelt *Weid*. Why? The derivation is from A. S. *Weod*. Lastly our dear Critic is greatly concerned that Mr. Champneys is not accredited the formulation of the theory of the outward pressure of the femora; however this may be, it is unimportant to the Student whatever it may be to the Reviewer.

The conclusion that "the book before us is the work of a first-rate mechanician, and of an obstetric physician extremely well read in the literature of his subject," is best part of the critique. But as for wanting all the the "strong and fearless guidance" in the ethics of daily practice, the Student and Practitioner probably prefer a clear description, and a good argument, to the strongest precept, and the plainest dogma. The Student of the day does not need to be dragged, although he has to be taught. The influency of the teacher is proportionate to his reasonableness, not his insistency; and his autocracy is, like schools of thought and esoteric followings, part of the lumber of the past. And it is this very striving after an autocratic supremacy of intelligence, supported by shallow didactics, and minute hypercriticism, which we have noticed, and resent, in this particular article.

W. L. B.

Obituary Notice.

ROBERT EDMUND CARRINGTON, M.D., F.R.C.P.

Dr. R. E. Carrington was born in May, 1853. He received his early education at the King's School, in Gloucester, where he gained a Scholarship and several prizes. After a short time spent at the Gloucester Infirmary, he entered at Guy's Hospital when only 17 years of age, obtaining the second prize at the Entrance

Examination in Arts. His career at the University of London was exceptionally brilliant, and would, probably, have been even more so if he had not had unusual difficulties to contend with. For whilst still an Undergraduate he was appointed Demonstrator of Anatomy, and just before he intended to present himself for the final M.B., he was taken ill with a severe attack of typhoid fever. Nevertheless, at the next examination, he obtained a Gold Medal in Medicine and Honours in all the subjects. Within a year he took the M.D., and was elected a Fellow of the Royal College of Physicians in 1885. Whilst Demonstrator of Anatomy he published a Manual of Dissections, which, owing to the originality of its conception, and the masterly manner in which it was written, soon obtained for him a reputation as a careful and truthful observer.

Hence he was appointed Examiner in Anatomy at the Royal College of Physicians, and Assistant Examiner in Anatomy at the University of London.

For a time he was Medical Registrar at Guy's, and at the time of his death he was Senior Assistant Physician, Senior Pathologist, Curator of the Museum, Co-Editor of the Guy's Hospital Reports, and Sub-Dean.

For some years he was Visiting Physician to the Seaman's Hospital, in Greenwich, a post which he was obliged to relinquish through the stress of his other work.

From this brilliant record it will be seen that Dr. Carrington had laid down solid foundations upon which he would, undoubtedly, have built a superstructure worthy of a Guy's Physician.

Already he had done a great deal of good honest work. In bringing out Dr. Fagge's book on the Principles and Practice of Medicine, Edited by Dr. Pye-Smith, no inconsiderable share of the work was done, and done well, by Dr. Carrington. But he did not write much. Hence his contributions to the Societies and Journals are not numerous. But whatever he published, or brought forward, was carefully recorded, and well considered, and hence it was always profitable to read what he had written, and to listen to his remarks.

His splendid scientific training, his thorough honesty in recording observations, the enormous amount of clinical and pathological material at his disposal, gave promise of his one day becoming one of the ablest Physicians in London.

Numbers of Past and Present Students at Guy's can testify to his ability as a Teacher. He did not spare himself in preparing for his Lectures and Demonstrations, and he was always ready to help a student who might have found difficulties in his work.

He was greatly popular amongst the staff and students. The secret of this popularity was in his essential kindliness of disposition. His good-nature was so manifest that one could always rely upon his sympathy in trouble, and upon his congratulation in success. In talking to him, one could be open and sincere and confidential, for one felt he was a true friend. Hence many went to him for advice and consolation. Moreover, he was always foremost in assisting those who were ill or in trouble, and few know the amount of self-sacrifice which he practised in administering to others, he was so unostentatious. Nevertheless, he endeared himself to all, and the news of his death caused widespread and heartfelt sorrow.

His death was finally due to acute pneumonia, the result of a chill caught on Friday the 11th March, when he got wet through. The following day he had repeated rigors and felt very ill. Still, he made a post-mortem on the 13th on a case of pyæmia of obscure origin. Four or five hours after making the post-mortem he was seized with sickness, and on the following day Dr. Frederick Taylor found him suffering from pleuro-pneumonia on the left side, with rusty sputa. On the 15th he became delirious, and on the 16th the right lung became affected and he sank comatose.

Before this fatal illness, however, he had worked himself into a weak condition, and it is probable, as the *Lancet* remarks, that he was never the same in health after the attack of typhoid fever in 1877.

An erroneous report, which has been put into the *British Medical Journal*, was circulated that he had inoculated himself at the post-mortem examination he made; but as will be seen above, his illness started the day before the post-mortem was made. No doubt, standing in the cold post-mortem room would aggravate the disease.

He was buried at Norwood Cemetery, on Saturday, March 19th, his funeral being attended by most of the Guy's staff and present students, besides many past students and a large number of relatives and friends. The long line of carriages forming the cortége, and the large number of wreaths and crosses of flowers placed on the coffin, testified to the respect in which he was held.

For his widowed mother, and for those to whom he was a loving and beloved brother, we feel a cordial sympathy. But not only they and Guy's, but the whole medical profession, have sustained a great loss in the untimely death of Dr. R. E. Carrington.

Sport.

THE CRICKET CUP.

At the Meeting in December, at which Guy's was disqualified, it was generally agreed that we might appeal to another meeting on the strength of certain objections which were brought forward by our representatives. This further meeting was held on March 18th, Sir Andrew Clarke in the chair. Guy's was represented by Messrs. Scott, Cruickshank, A. S. Taylor, and Colclough. At the outset Mr. Fagan, of London, brought forward a motion "That the appeal be not entertained." An amendment by Mr. Taylor, "That the appeal be entertained," was lost by 7 votes to 5; the Chairman, contrary to etiquette, taking an active part in the debate, and showing clearly that his opinion had been secured against us before the meeting. This underhand business shews how weak our opponents deem their cause to be, and it is against such combined injustice that Guy's is contending.

After this the question was constantly reopened in a desultory fashion, though, of course, out of order. Finally it was decided that the Secretary should write to Guy's, asking for the Cup. It is understood that if we resign the Cup, then in the event of our winning it next year, the last season should be considered *annus non*, so that we might then purchase it. The weak point in this arrangement is that it is impossible to make certain of success this season, and, in the event of failure, we shall have lost the Cup for good.

FOOTBALL.

Rugby Football Notes.

The final tie for the Inter-hospital Rugby Cup was played off at Richmond, on Tuesday, March 22nd, and resulted in a victory for Middlesex by two tries to nil.

Middlesex were without two or three of their best men —possibly this largely spoiled their play—anyhow their exhibition was not a good one, and I should say that, on the form shown in the final, they are inferior to two or three of the teams that have taken part in this year's competition. Whether I am right or not does not matter much. They have won the Cup—and are heartily to be congratulated on their first achievement of that distinction.

Thomas' ought to have won. They did not because they were very nervous, they did not feed their three-quarters, they played Thompsett, they did not "back up" forward, and they had just the luck against them with the wind that we had against us when they beat us—It was strong against them in the first-half—and dead across the ground in the second-half.

Results of Competitions for Rugby Cup.

1874-5	Guy's beat George's.
1875-6	George's beat University.
1876-7	Guy's beat Thomas'.
1877-8	Thomas' beat University.
1878-9	Guy's beat Bartholomew's.
1879-80	George's beat Bartholomew's.
1880-81	Bartholomew's beat London.
1881-2	George's beat Bartholomew's.
1882-3	Bartholomew's beat George's.
1883-4	London beat Batholomew's.
1884-5	London beat University.
1885-6	Guy's beat University.
1886-7	Middlesex beat Thomas'.

At a Committee Meeting held on March 24th, the honour caps for the season were awarded to T. O. Raw and H. G. Steele, we beg to offer them our congratulations.

ASSOCIATION.

Surrey County Association Challenge Cup. Semi-Final.

Guy's *v.* R.M.C., Sandhurst.—This tie was played last week at Godalming, and after a very pleasant and well contested game ended in a victory for us by one goal to nil.

Sandhurst won the toss and started with the sun at their backs, giving us the advantage of a slight wind. Very even play resulted till their left wing got away, and centred. Bolus tried to volley the ball instead of handling it, and making a bad kick nearly gave them a goal; their centre, however, dwelling too long on the ball, Roberts had time to put his foot in the way, and the shot went wide. F. H. Brown then got away and ended up a good run by a fine middle, which our right did not take advantage of. On changing ends we had if anything the best of the game, though once or twice their forwards were allowed to get away through misunderstanding between our backs. About ten minutes before time Sturges-Jones sent in a shot from the right, which their back attempted to head away, but in doing so directed the ball between the posts out of reach of the goal-keeper.

From now to the end Sandhurst played up hard to equalise, but our defence was good, and from a long kick by our back Holman got clean away and had no one to pass except the goal keeper, but not shooting soon enough he lost the ball.

Just before the whistle sounded one of the R. M. C. half-backs sent in a hot shot which went only an inch or two above the bar.

We now have to play Reigate Priory, the holders, in the Final, on April 2nd, at Dorking.

Teams: H. B. Bolus (goal); A. C. Roberts, G. W. Mitchell (backs); E. J. D. Mitchell, A. T. Brown, C. G. Roberts (half-backs); F. H. Brown, W. Winslow (left); E. W. Sharman (centre); W. E. Sturges-Jones, and H. J. Holman (right).

Our backs played much better than usual. Bolus did not have much to do in goal, but he made a great mistake in the first half in not using his hands. Forward, our play was by no means a success. The passing seldom came off. The ball generally went straight to one of their backs. The outside wings did not middle soon enough, but waited till our opponents got back.

We must play much better together to make a bid for the Cup.

NOTICE.

[*Space obliges us to defer concluding our account of this and an account of the Final Association Tie till next number.*—Sp. Ed.]

Guy's Hospital Gazette,

APRIL 16, 1887.

The question of our appointments, discussed by "An Old Dresser" in our last number, is, undoubtedly, a most interesting and important one. It, however, must not be supposed that the matter has not been often enough discussed by the School Authorities, because it has not before been ventilated in print. Some of the statements of our correspondent are perhaps a little misleading. While it is to a great extent true that few men obtain Dresserships before their 5th year; it must be remembered that the majority of those who are competent to take them are University, or Fellowship men, who are, in any case, bound to attend the Hospital, for that or a longer period; moreover, their Anatomical Examinations often oblige them to postpone their appointments, so that they are unable to apply for their Dresserships earlier. Nor do we think that appointments deferred can be entirely held responsible for the earlier or later period at which a man passes his Examinations. We have a strong belief that the energetic man moulds his circumstances, almost as much as circumstances mould the lazy one. But with the main conclusions of "An Old Dresser" few will, we suppose, be found to disagree. A large number of men do, undoubtedly, fail, by the present arrangement, to obtain the great advantage of having been a nominal as well as a practical House-Surgeon. The duties discharged by our Full Dressers are every wit as responsible, and instructively advantageous as, if not more so, than those discharged by the "House-Surgeons" of Thomas's, of King's, of University, or the London. The only difference is that our Dressers are not resident throughout the period of their term of office. To have all the Dressers resident for six months is financially out of the question; to have four only in continual residence would entail an expense that is at present out of the question. And this is the chief objection, we believe, that the Authorities would have to making such an alteration as would make our appointments tally with those of other Hospitals —an alteration of which the Staff themselves have no doubt long seen the advantage. There are certainly other means of obtaining the end in view, without entailing extra expenditure: whether or no they are feasible, is a matter for the Authorities to decide. In a discussion of such moment to us Students, it is only proper to ventilate every suggestion.

In the first place, if it be desirable to multiply the number of House-Surgeoncies without increasing the number of Residents, this might be effected by abolishing the present Resident House-Surgeons, who properly correspond to what in other places are called "Resident Surgical *Officers*," and having in Residence four, instead of two Dressers, each as House-Surgeon to one Surgeon; each Residing six weeks; each Surgeon having, as now, four House-Surgeons instead of Dressers. This would make 32 House-Surgeoncies available yearly, instead of 32 Dresserships, and 16 House-Surgeoncies. The difficulties would be in maintaining the duties at present discharged by the House-Surgeon proper. These might be carried on as follows: of the four new House-Surgeons, the senior would act as the present Senior H.S.; the 2nd as the present 2nd H.S.; the 3rd as the 3rd H.S., and Ex-Dresser; the junior, as Dresser for the Week. Except for the purpose of helping (must we add, sometimes instructing?) the Dressers, the present House-Surgeoncies are hardly of more than nominal utility. Hence their place might readily be fulfilled by the more experienced, and the longer Resident, Dressers, in turn.

But a more satisfactory, and as it seems to us perfectly feasible plan, rests on the answer to the question: *Is Residence for Six months necessary to the Definition of a House-Surgeon?* We believe it is not. Each Dresser, at present, does reside in Hospital for some weeks; and has practically the complete superintendence, under his Surgeon, of the patients taken in during that time. He is also held responsible for them by his Surgeon. Hence the difference between our Dressers and other Hospitals' House-Surgeons is, as "An Old Dresser" points out, purely nominal. There is therefore required,

to place Guy's men on a level with men at other Schools in the matter of Appointments, a corresponding *nominal change* only. Let the Dressers be designated House-Surgeons. They practically are so. And the present House-Surgeons may be denominated—as a superior order of beings—Resident Surgical Officers. This little change is all that is needed. We believe if the Authorities will consider it, they will adopt it, thereby increasing the advantages of the School without any extra expenditure, and maintaining without diminution that excellence of Clinical teaching by systematic appointments of which all Guy's men are rightly and traditionally proud.

CLINICAL LECTURE

By Dr. Goodhart,

ON A CASE OF FIBROID DISEASE OF THE HEART.

John S., æt. 30, was admitted to John Ward for albuminuria, 26th February.

The Patient's family history was unimportant—personally he had never worked at any laborious occupation, nor was there any history of excessive athletics. Twenty-four years ago he had scarlet fever, which was followed by dropsy lasting for four months. Since then he has been quite well up till the present illness, except for a slight attack of "low fever" five years ago, which laid him up for a week. No history of any venereal disease. Such are the important points of his previous history.

As regards his present illness.—In the winter of 1884-85 suffered from cough and dyspnœa, and again in the winter of 1885-86.

In January, 1887, he suffered from dyspnœa and cough, lumbar pain, and œdema of legs, and his medical adviser, Mr. Bedford, of Trinity Square, found albumen in his urine.

He was admitted on these grounds.

Dr. Goodhart, discussing this condition of things, pointed out that the first question that arises is whether the primary lesion is renal or cardiac. Much information can be derived from further examination of the urine. In this case the specific gravity was high, and there was a copious deposit of lithates, and this points to the fact that the kidney is still excreting nitrogenous matters freely, and suggests that the heart is at fault. In the same ward there is a boy with marked signs of cardiac derangement, whose urine, however, is of low specific gravity, and deficient in nitrogenous matters; and here, he thinks, the primary lesion will be found to be renal.

A remark of Sir William, then Dr. Gull, was alluded to, viz., that when after scarlatinal nephritis lithates reappear, the prognosis improves since the excretory powers of the kidney must have improved. As an exception to this rule it is true that lithates are sometimes excreted in the earlier stages of a granular kidney.

The condition of the urine being as described, Dr. Goodhart directed his treatment to the heart.

Returning to the symptoms presented by the patient on admission we find pallor noted, and his was the pallor of organic heart disease, a dead white pallor, not the sallow pallor of anæmia (this distinction, however, is more marked generally in children than in adults).

Secondly the "apex-beat" was external to the nipple line. This indubitably points to enlargement, and generally with dilatation, but *not* necessarily to enlargement of the left ventricle. Enlargement of the right ventricle may displace the apex or impulse to the left. There was no bruit audible, but the heartbeats were irregular, intermittent, and variable in force. Attention has recently been drawn in the Medical papers to the comparative prognosis in cases of cardiac disease marked by bruits. But even more important is cardiac disease marked by irregularity of beat. The latter class of symptoms may mean much or little, and the causes of this intermittent pulsation may be enumerated as follows:—

Functional causes.—(1) Idiosyncrasy; the condition may last throughout life, and be easily excited by slight causes. (2) Excessive tea-drinking. (3) Excessive tobacco. (4) Dyspepsia; this is, to a great measure, a matter of idiosyncrasy, and the palpitations need not be regarded as indicating any cardiac disease. (5) Gout. (6) Neurotic constitution—e.g., the case of a man whose heart beats irregularly whenever he is examined for life assurance. (7) Renal disease: this

is neither more nor less than fatigue of the heart when called on to keep up a perpetual high tension. This condition is found both in early and late stages of the disease; the patient complains that owing to dyspnœa he cannot sleep or lie down, and that he suffers from palpitations. In such a case examination of the urine will clear up the diagnosis. This cause of intermittance faces both ways to functional and to organic causes.

Organic causes.—These are various, and are generally associated with acute dilatation; the chief symptoms are fainting, vertigo and dyspnœa.

The dilatation may be due (1) to valvular disease; (2) to fibroid disease of the cardiac tissue; (3) to fatty disease of the cardiac tissue (this, perhaps, more often leads to rupture than dilatation); (4) lastly there are cases of dilated hearts in which we can detect no sufficient cause.

Returning to the symptoms of the case before us, we have (*a*) irregularity of heart beat, (*b*) no bruit, (*c*) dropsy, and in forming a diagnosis we may at first confidently assert that the heart is enlarged; the question arises is this secondary to renal disease. In support of this we have the history of scarlatina, obviously followed by some nephritis, but on the other hand we have the long period of twenty-four years of good health since that attack, nor are there in this case the hard arteries and the high tension of renal disease. Are we then to attribute the dilatation to valvular disease? This is not put out of court by the absence of any bruit, but with no history of rheumatism, no laborious occupation, is on the whole improbable. Fatty disease again is not probable considering the patient's recent good health and age, and we are reduced to two alternatives; either it is a case of "simple" dilatation with no assignable cause, or it is a case of fibroid disease.

The former is a very rare condition, and we turn to the causes predisposing to fibroid disease to see if this is the probable cause of the dilatation.

As causes of fibroid disease may be enumerated:

(*a*) Syphilis, the most common cause (but apparently absent here).

(*b*) Endocarditis, this very rare.

(*c*) Pericarditis, this not so rare after rheumatism, but here there is no history of rheumatism.

(*d*) Hypertrophy, due to over exertion.

(*e*) Degeneration of the coronary arteries.

(*f*) Unknown causes.

At this point the diagnosis became obscure, for it was hard to see to which of these causes the fibroid condition was due.

Dr. Goodhart then anticipated the order of events, and showed the lungs of the patient which had been found to be emphysematous. He pointed out that this did supply a possible explanation of the hypertrophy which again preceded the fibroid degeneration. The pulmonary mischief of the last few winters may have thrown so much work on the heart that there was first hypertrophy and subsequent fibroid disease.

In discussing this transition from hypertrophy to fibroid degeneration Dr. Goodhart alluded to Dr. Ord's opinion on the subject. This author thinks that the fibroid degeneration takes place during the process of involution of the cardiac hypertrophy, after the cause of that hypertrophy (e.g., excessive athletics) is removed. From this view Dr. Goodhart dissented, thinking the transition more closely parallel to that obtaining in the muscles of the arm in certain trades in which there is perpetual hammering: Hammerman's disease. The muscles eventually undergo fibroid degeneration, but this is not after the excessive labour is suspended, in a stage of involution, but rather while the excessive labour continues—they die "in harness," the explanation being that up to a certain point the muscle answers to the excessive call by hypertrophying, but when a certain point is reached, and the demand is *still* excessive, it degenerates.

This will explain the state in which the right ventricle was found *post mortem*, and the similar state of the left ventricle must be attributed to sympathetic and synchronous increase—this order of things is more commonly seen reversed.

As regards the treatment, Dr. Goodhart said there was not much to say. The case was really beyond treatment. The indication was for a cautious use of Digitalis and consequently small doses of the infusion were used, but when these were found to have no markedly good effect Opium and Ether were substituted.

DEATH BY THE BRAIN.

While death by heart-failure involving the Brain with the rest of the system in its collapse; death by the lungs, starving the administrative nerve-centres of the oxygen necessary to carry on the machinery of life; and death by sudden unhinging, stoppage or slower exhaustion of the working gear of those same administrative nerve-centres of Respiration, and Circulation in the Medulla itself directly, have been described, and appear naturally to form three distinct modes of dying, it has yet long been questioned whether death ever takes place primarily by failure of the whole great Brain, the nervous organization itself alone. A careful observation of one or two cases seems to me to prove that there is indeed such a distinct and separate manner of dying, and the following is one which lends support to the distinction.

Case.—John W., æt. 83, a hale, florid-complexioned, white-haired, vigorous old man, consulted me first upon (1st day) the 8th of March. He had always been of vigorous health: living in easy circumstances: working (as a Bailiff) out of doors; of late years he had given up active labour, and led a quiet existence, with plenty of open-air exercise. He had never had a severe illness; or been troubled with winter-cough: at most he had had occasionally a little trouble with the bowels. He now complained of a little failure of appetite; and of slight constipation: he had for the last day, he said, taken to having milk only for food, and would continue it for a day or two. He also had a little phlegm, and tickling in the throat; and as it was very cold, thought best to keep in-doors. He seemed to me to attach unnecessary importance to his constipation; but he was very cheerful; had a good memory; and plenty o muscular power. I allowed him to continue his "fad" of milk-diet for one day; and gave him a little expectorant with Mist. Acidi Co.

3rd day.—His appetite had improved, and he had been induced to give up living merely upon milk, having had other meals. But to-day he went out, in a cold wind, to call upon his son; there he gave some purposeless and inappropriate orders, and talked "rather random," and seemed very restless, aimlessly busy, and excited. Reaching home, he found himself tired; would have no food, and went to bed, where he lay all night groaning loudly, and very irritable. On my calling to see him, at noon next day, he called out he was "quite well: wanted no doctors." He was quite boisterous and unruly, his housekeeper said he had never been obstinate like this before. In bed he continually groaned loudly that afternoon, lying half-dozing.

In the evening, however, at the request of his friends, I saw him; found him drowsy, but awake; a little stupid; hearing less acutely; indifferent in answering questions; and groaning often. He could then stand, and get out of bed to micturate; which he did slowly and with effort. He had had several loose motions; and now complained of great pain across the abdomen, with flatus; and of pains all over on movement, but especially a sharp fixed pain in the sole of the right foot. The External Popliteal Nerve on that side was tender to pressure; and to move that leg caused sharp pain; nevertheless he could slightly move it voluntarily. There was no headache; eyes were normal; pulse very full, and heart action vigorous; frequency 80; respiration vigorous, lungs filling well; frequency 25. A composing mixture containing Bromides was allowed.

4th day.—He still lies heavily on his back; dozes and groans alternately. He can get out with difficulty to pass water, which flows feebly, and dribbles for some time after. The pains in abdomen, foot and other parts continue unimproved. He answers rationally but slowly, with some effort of speech, and attention; does not recognise faces so readily; and is apathetic and indifferent; but takes his food. Complains of wind, and passes a good deal of flatus. Bowels not moved.

7th day.—Has continued much the same during this interval; but is a little duller; stares a good deal before recognising one; and speaks more slowly, and with more evident effort, and weaker voice. Pupils equal, and reacting well. No tremor of tongue; grasp of hands weak,

Cannot get out of, and can hardly bear to be turned over in bed. Urine dribbles away (but not from over-distension). He has been ordered Liq. Strychinæ, and Mineral Acid (Nitro-Hyd. Dil) before, and Liquor Pepticus after his food; milk, beef tea, port, eggs, light puddings, Brand's essence, and Peptonoids.

Still complains of severe pain in right foot and leg, especially on movement. Circulation vigorous, arteries pulsating forcibly, and extremities warm. Respiration increased in frequency (28), noisy and vigorous. His memory is much impaired, being unable to recall his last meals; and he imagines that he is not at home but in a Hospital. Slight wandering, purposeless movements of his hands, which were not before described (because not marked), have become a feature. He spreads them vaguely in the air, and moves them about irregularly and over the surface of things, like a blind man establishing identity; the movements are accompanied by considerable tremor, and often repeated, though stopped for a time when his hands or arms are firmly grasped, or laid under the bed-clothes.

13th day.—He had an attack of tonic spasm of the limbs and body last night which lasted an hour; and collapsed considerably; so that he was thought to be then dying. This morning he is much exhausted; hardly roused by shouting; and lies staring vacantly in front of him, with his mouth open, snoring and groaning. He with difficulty recognises me, or the purport of anything said to him; the movements of his tongue are very feeble, and he speaks in a slow, pausing, hardly articulate whisper—his voice has been gradually failing in strength throughout. His pulse occasionally intermits; the pupils react less readily to light; but in other respects he is about the same. He has difficulty in swallowing.

14th day.—This morning he is quite unconscious, not hearing, or (apparently) seeing any thing; the corneæ are insensitive to touch; the pupils contracted and reacting very slowly; the mouth and tongue are brown and dry; there is no reflex response on placing food in the mouth, or irritating the fauces; the skin, which was heretofore warm, is cooled. The pulse, however, is remarkably vigorous and regular; the respiration regular, free, deep and frequent; but some large mucous rattles are heard in the trachæa and bronchi.

He did not die, organically, until *ten hours after* the last note. I say "organically" because he was dead to all outward stimuli when that note was taken, the vegetative functions merely of heart and respiration continuing, as they might have continued, indefinitely, had there been sufficient *vis nervosa* in the higher centres to encourage their automatic and still vigorous labour.

I should add that on the 3rd and 4th day I attempted, but failed, to elicit any *tendon* or *cutaneous reflexes* on the limbs or trunk; and that the *urine* was early and often examined, and not found to contain anything abnormal.

To sum up, the features of such a manner of death as this, the failure first of judgment, then of memory, sensibility, voluntary and reflex nerve-effort, and finally of pure automatic nerve-actions, unaccompanied by corresponding failing of muscular vigour, seem to me clearly to justify the conception of death by the brain primarily. No doubt many old people die thus; but few perhaps die so completely unembarrassed by recognisable clinical or pathological complications. There seems to be a point in the vitality reached when the nerve-power, the—*pace* Dr. White's "Neuro-rheuma"—*nervicity* of the man, so to speak, comes to the last limit of its endurance, and the chemical fabric which was kept together (or apart) by its influence suddenly collapses and breaks up.

Some change takes place perhaps throughout the mass of nerve-tissue consequent upon a little initial alteration in part of it, just as a motionless body of water, below freezing, suddenly leaps into ice when stirred. The automatic centres only, of more vigorously-endowed constitution, resist the chilling influence awhile; at last these too give way, and die, ceasing their vital vibrations from compulsion, or by despair. Perhaps their long survival of action amid the general failure and breaking up of the brain functions may be owing to their remaining in some sort of chemico-pschycological "dead space?"

LEONARD BRADDON.

PATHOLOGICAL NOTES.

Right Hemiplegia—Strangulated Femoral Hernia—Fœcal Fistula in Right Groin.

In a recent number of our Gazette we gave the notes of a case of Fœcal Fistula in the Left Groin, and showed that it resulted from a Psoas Abscess secondary to malignant disease of the sigmoid. The present case, in many respects like it, began, however, in a very different way.

History.—F., 36. Right Femoral Hernia came on after a fall seven years ago. Only wore a truss for a year. Eighteen months ago weakness and numbness of the right side began, which the patient attributed to a severe cold. Complete right hemiplegia supervened four months later, but it seems to have improved somewhat up to present date. Eight months since she had an attack of "inflammation of the bowels," lasting three days, which was relieved by an opening which formed in the right groin. There has been a free fœcal discharge from it, and nothing has passed by the rectum since.

On admission.—Much emaciated; memory impaired; great difficulty in talking. Right hemiplegia with slight anæsthesia, but the paralysis of the leg is not complete. Fœcal fistula in position of right femoral hernia. No albuminuria. A week later there was a natural motion per rectum. Good deal of pus from the fistula. Became gradually weaker, and died exhausted three weeks after admission.

Post-mortem.—The brain showed an old meningeal hœmorrhage on the left hemisphere over the motor area, with cerebral softening beneath, and descending degeneration extending the whole way down the cord. There was an old strangulated femoral hernia, which was removed and dissected. The proximal end of the bowel was much dilated and the distal end correspondingly contracted. On laying open the fistula it was found to extend for $2\frac{1}{2}$ inches up the hernia; but besides this main track there were two or three others proceeding from different parts of the hernia, though all ended at the same skin opening. Thus one commenced very near what must have been the neck of the hernia, while the main fistulous track was continuous with the apex of the hernia. The kinking of the bowel had produced a "spur," though by no means a prominent one, and it did not appear to have acted as a valve. The proximal aperture of the hernia was only a quarter of the diameter of the bowel a little higher up, and it was bounded by a well-marked stenosis of the mucous coat consequent on the previous ulceration. A cord of omentum was attached to the hernia at the margin of the crural ring.

Remarks.—Some of the facts in the history of this case must be considered open to question, owing to the weak mental condition of the patient. It is very improbable that the strangulation, ulceration, perforation, and formation of a fœcal fistula all occurred in three days. The position of the sinuses with regard to the hernia, and the stenosis of the bowel, are interesting as showing the usual results of unrelieved strangulation that has not gone on to gangrene. In fact, the case may be taken as a typical example of the "natural" treatment of strangulated hernia.

A MEMORIAL TO DR. CARRINGTON.

A wish has been expressed by many of the Students to erect a Tablet to the Memory of the late Dr. Carrington. The House Physicians and House Surgeons will be glad to accept subscriptions for that purpose, the subscriptions not to exceed the sum of Five Shillings.

SPECIAL APPEAL FUND.

A Concert will be held at the Bridge House Hotel, on Wednesday 20th, in aid of the Special Fund for the Hospital. Tickets may be obtained of Mr. Grattan in the Borough.

On the 21st and 23rd of this month, a performance of "Adrienne Lecouvreur" will be given at the Novelty Theatre, in aid of the Special Fund. Tickets may be obtained of Mrs. H. Morris, 2, Mansfield Terrace, Portland Place. Students wishing for tickets may obtain them from Mr. Burghard, H.S.

Passim.

The New Club.—Those who know the difficulty of collecting money for whatever purpose, will hail with joy the kind offer of the Staff, to lend the funds necessary to start our Club, on a really good basis. It is a proof, if any were needed, how thoroughly they have at heart the welfare and progress of the School in every direction. Several new rooms are to be opened together; and a Committee will be composed of equal numbers of the Staff, and the Students, to carry this into effect.

Dr. Emanuel May, of Ealing, has favoured us with reprints of some communications made by him to the local *County Times and Ealing Gazette*, dealing with the treatment of Diphtheria, of which that district had so terrible an outbreak recently. Another letter appeared in *The Lancet* on the same subject, written by Dr. May, who evidently takes an intense interest in the treatment of Diphtheria. While we do not think it the best of medical ethics to publish details of medical treatment and opinions in unprofessional papers, we may perhaps allow Dr. May's enthusiasm to cover the dereliction. Dr. May's views, as unfolded in these letters, are briefly—That the disease spreads especially among "persons out of health with stomach derangement; a humid atmosphere prevailing with a S.E. wind, containing minute atoms of the fungus; the unhealthy condition of the mucous membrane of the fauces being a fertile spot for it to fructify and germinate." He has had in 35 years about 100 cases under his care, and "only witnessed two deaths, and these happened in delicate children to whom I was called after they had been ill two or three days with the disease, and which I discovered had travelled into the windpipes upon my first inspection."

Dr. May puts his patients on a slop-diet, and brushes off the membranes, employing constant applications of Silver Nitrate or Carbolic Acid; he strongly disapproves of tonics and stimulants to begin with, believing more good is attained by attending to "the secretions" with diaphoretics and "alteratives."

A subsequent letter to the *Ealing Gazette*, in which Dr. May advocates the use of such microbicides as Corrosive Sublimate, reads very much as if the author had just perused an article on Antiseptics in the first number of the Guy's Gazette. The passage to which we refer runs as follows, and is italicized by ourselves:—

"This disease having been attended with such fatal results in Ealing is my excuse for bringing before the intelligent public the scientific researches and experiments of Professors *Tyndall*, Koch, Pasteur and others, who have *lately* proved that we have chemical agents which will destroy microbes and their spores in a very short space of time, and which can be administered as remedies internally in these septic diseases, *e.g.*, bichloride of mercury *(corrosive sublimate), which will act as a microbicide in ten minutes (one in 20,000). This, therefore, may be termed the prince of antiseptics; chlorine and iodine come next* in power; *oil of mustard and oil of peppermint* are likewise very decided in their action as antiseptics, and may be utilised."

We hope our suspicion is correct, and that we have indeed had the honour of inspiring Dr. May's ardour in a Scientific plan of Treatment of a Bacteridian disorder.

There is no doubt that, in this as in similar disorders, starting from local infection centres, treatment is to be aimed at destroying the germs both at the site of growth by strong local antiseptics, and throughout the body by such internal microbicides as may be found effectual, no less than to aid the struggle of the body against the invader, supporting its strength and vitality by plentiful food which can be assimilated, as well as tonics.

Whether Perchloride of Iron, or Oil of Peppermint, are efficient as internal Anti-Diphtherites must be determined by experience. Perchloride of Iron, which Dr. May thinks next to useless, has been certainly found in other hands useful. Perhaps he will be induced to try it when he learns that it is not only a general blood-tonic, but for many species of bacteria a very efficient germicide.

NOTICE.

The concluding Meeting of the Physical Society for the Session, postponed on account of the death of Dr. Carrington, will be held on Thursday, May 5th, at 7.30 p.m., when Mr. Campbell will read a Paper on Diabetes; and the Prizes will be announced.

Dr. Wilks, the President, will take the Chair.

LINES

ON THE

DEATH OF R. E. CARRINGTON, W. MOXON, F. N. A. MAHOMED AND HILTON FAGGE.

Mourn for the dear departed ones! Yet let
Their end serve but to emphasise this truth:—
That bright examples stand the test of time,
And use of mortals is not gauged by length
Of days of unremitting toil and skill.
Their labour finish'd,—still their works endure,
Nor fades their glory from the scroll of fame.
Rather fresh lustre rises to adorn
The crown that circled them while yet they liv'd—
The shrine at which men's homage now they pay—
To sanctify and keep their mem'ry green.
Thus do all good ones fill this noble part:—
To be a Lamp,—the guide of future years!

27th March, 1887. H. R. S.

THE FERMENTATIVE PROCESSES OF THE ALIMENTARY CANAL.

The changes which the food undergoes in its passage along the intestinal tract are mainly produced by the action of ferments, which are substances or bodies, whose bulk relative to that of the material acted upon is very minute, but which are, nevertheless, capable of producing very marked changes in the constitution of the contents of the canal.

These ferments are conveniently divided into two classes—unorganised and organised.

The unorganised ferments or enzymes are produced within the body itself by the vital activity of protoplasm. They are non-living, do not multiply during activity, and their action is not prevented by the presence of a certain amount of salicylic acid. They are soluble in water and in glycerine, and are precipitated by alcohol, or carried down along with any copious precipitate produced in the fluid containing them. Their action is most vigorous at temperatures between 30°-40°c.; at higher temperatures their activity is suspended and then destroyed. At temperatures below 30°c. they are not so powerful, and at 0°c. they are unable to produce any effect. Many of them are antagonistic to one another, but all agree in their dependance upon temperature, destruction by a high temperature and by certain chemical reagents, and in absence of proof that they are themselves changed in actions they induce. They seem to be nitrogenous bodies, and have been classed by some authorities as proteids, though it is doubtful if many have been obtained in a pure state. For want of a better explanation they are said to act as catalytic agents, and because many of them split up molecules with the assumption of water they are called hydrolytic agents. Obviously this is not any explanation at all of their mode of action, about which nothing is known.

It is scarcely necessary to do more than name the unorganised ferments found in the Alimentary Canal. Taking them in order we have:—

Saliva contains a diastatic ferment (Ptyalin) which converts Starch into Maltose, with the formation of several intermediate products, the relations of which have not been fully worked out. It acts in a neutral or slightly alkaline solution.

Gastric Juice contains—

- Proteolytic ferment (Pepsin), acting in an acid solution.
- Milk-curdling ferment, acting independently of the free aid of gastric juice.
- A ferment which splits up fats into glycerine and fatty acids (?) (Cash and Ogata).
- A lactic acid ferment, stated by Hammarsten to convert milk-sugar into lactic acid.
- A ferment which exists in a stomach containing an excess of mucus, and capable of converting cane-sugar into dextrose.

Pancreatic Juice contains—

- Diastatic ferment (amylopsin) acting more energetically than ptyalin, as shown by its action on raw starch, cellulose and gum.
- Proteolytic ferment (trypsin) acting in an alkaline solution, and producing besides peptone, leucin, tyrosin, xanthin, hypoxanthin, glutaminic and asparaginic acids, and glycin (from gelatin).
- Fat-splitting ferment (steapsin) decomposing fats into glycerine and fatty acids, and Lecithin into glycerinphosphoric acid, neurin, and fatty acids.
- Emulsive ferment (?)
- Milk-curdling ferment.

Secretion of Brunner's glands.—This secretion acts on proteids in acid solutions, has no action on fats, has a doubtful diastatic action, and converts maltose into glucose more actively than any other of the digestive juices.

Intestinal Juice.—This secretion acts slowly on proteids, has a weak diastatic action, a slight emulsifying action on fats, and converts maltose into grape sugar, thus continuing the processes begun by the diastatic ferments.

According to Cl. Bernard this secretion contains invertin, which causes cane-sugar to take up water and break up into a mixture of dextrose and lævulose. This ferment is present in the fœtus, and is found in the small but not in the large intestine.

The organised ferments are living organisins, whose action depends upon their vitality. During their activity they grow and multiply, deriving their nourishment from the surrounding media, and in the act of growing produce the "fermentation changes." Their activity is interfered with or destroyed by extremes of heat and cold, and by various chemical re-agents, *e.g.*, chloroform, ether, salicylic acid, &c., oxygen at a pressure of many atmospheres destroys them (P. Bert).

They are introduced into the body along with the food, liquids, and inspired air, as well as by frothy saliva. In the fœtus these organisms cannot be found, hence the absence of flatus in the fœtal intestine.

The fermentation processes which they give rise to after birth are as follows:—

a. *Lactic acid formation* from carbohydrates through the agency of the Bacterium Lactis. This organism produces the spontaneous audification of milk. In children abnormal milk fermentation is easily produced in this way.

b. *Butyric acid fermentation* through the agency of the Bacillus Butyricus, which changes lactic into butyric acid with the simultaneous formation of CO_2 and H.

c. *Acetic acid* occurs in the intestine but it is stated that this cannot be formed by the Bacterium aceti as the acetic fermentation is arrested at 35 °C.

d. *Alcoholic fermentation* of carbohydrates depending upon an unknown agent (Yeast?).

e. By the action of some fungi starch and cellulose are partly broken up into CO_2 and CH_4, and partly (? cellulose) transformed into a sugar. Invertin is also formed in a similar way.

f. The neutral fats can be broken up by certain micro-organisms, both the glycerine and the fatty acids undergo further fermentative changes.

g. Undigested Proteids are not acted upon by these ferments, but the products of their digestion (especially pancreatic) furnish a considerable number of different substances.

Leucin $C_5\ H_{10}\ (NH_2)\ COOH$ takes up water and yields Valerianic acid $C_4\ H_9\ COOH$ ammonia and hydrogen.

Tyrosin $C_9\ H_{11}\ NO_3$ by decomposition yields Indol $C_8\ H_7\ N$, CO_2 and N. Indol $C_8\ H_7\ N$, and skatol $C_9\ H_9\ N$, are found in large quantities in the intestine when absorption of products is slow, this is especially the case in intestinal obstruction. According to Bayer these bodies when pure have no smell. From indol is formed indican $C_8\ H_7\ NSO_4$, which is occasionally excreted in the urine.

Certain bodies of the aromatic series are the result of putrefactive processes in the intestine; these are Phenol, Cresol, Phenyl-propionic, and Phenylactic acids. The gases resulting from all these intestinal fermentations are CO_2, $H_2\ S$, H, and CH_4.

It is found that if oxygen be present in the intestine, oxidation processes go on, and no hydrogen gas is formed; if oxygen is absent reducing actions predominate so that the nature of the gases and their volume will depend upon the presence or absence of oxygen.

These being the fermentative processes which occur in the alimentary tract as the result of the action of the zymogenic Schizomycetes, it only remains to point out how these processes are limited in health so as to avoid any excess of noxious products, and secondly to indicate the ultimate destination of the ferments both organised and unorganised.

It is evident that if all these putrefactive decompositions were not held in check, a serious state of affairs would soon be arrived at.

The first point of importance is that germs are freely taken into the Alimentary Canal producing no evil result, whilst intra-venous injection of putrid matter causes *death*.

Miller has recognized 25 forms of Bacteria in the saliva, eight of which were found in the stomach, and twelve in the fœces; but many of those found in the fœces were incapable of cultivation, indicating their destruction in the intestine.

The gastric juice is generally considered to be the agent by which many of the micro-organisms are killed. Koch, for example, says that his comma bacillus is killed in the stomach, and that neutralization of the juice and administration of opium were necessary for the production of choleraic symptoms in animals fed with cholera bouillon.

Bile is also said to be an antiseptic, though observers differ on this point.

Bidder and Schmidt, in their well-know experiments on dogs with biliary fistulæ, noted the following phenomena:—

"The digestion seemed to go on in the proper manner, the intestinal emptyings were sluggish and rare, the fœces soon assumed a greasy, clayey property, were grey or greenish-coloured, and displayed an extremely bad, genuinely foul smell, which distinctly pointed to putrefaction. This was also indicated by the strong gas development, the constant noises and rumblings, and the giving off of badly smelling flatus. The smell of the expired air was unpleasant, equally if the animal was fasting or had eaten."

Rohmann has endeavoured to show that the putrefactive changes described above depended upon the abnormal decomposition of fats in the intestine.

Emich ascribes an antiseptic action to the bile salts, especially to Tauro-cholic acid, which he ranks as equal to Salicylic acid. Other observers consider Glycocholic acid to be a better antiseptic than Tauro-cholic acid.

It is especially noticeable that the putrefactive processes in the intestine lead to the formation of compounds of the aromatic series, *e.g.*, phenol, &c., so that the action

of the micro-organisms is to produce substances limiting their own action.

With regard to the ultimate destination of the unorganised ferments, there are found in the fœces a ferment similar to pepsin, and an amylotic or diastatic ferment. From the urine two similar ferments may be obtained; so that it is probable that these are used-up ferments of no further use to the organism.

Besides this the acidity of the gastric juice destroys the ptyalin of saliva; the pepsin and rennet of gastric juice are destroyed by the alkalies of the pancreatic juice and intestine, and by trypsin; whilst the trypsin and amylopsin of pancreatic juice are destroyed by the acid fermentations of the large intestine. All the unorganised ferments of the alimentary canal seem therefore to be mutually destructive.

It is obvious that two views may be taken with regard to the action of the zymogenic organisms—either that their presence is accidental, and the fermentation processes, which they induce, abnormal; or, that they are important agents in the work of body metabolism, their products only being injurious only when in excess. Probably the latter view is the more correct. P.

THE FAMILY DOCTOR.

For a long time we had noticed with curiosity, in the windows of newspaper vendors, an illustrated journal entitled the "Family Doctor, and People's Medical Adviser." The front-page picture was a representation of some such fascinating episode as the process of laryngoscopic examination, or, in other cases, the portrayal of the ill effects of tight lacing. This week, there is a speaking likeness of Dr. Alfred Baring Garrod, with a complimentary notice of his life and works.

We felt that we should like to investigate this journal, which could hardly fail to be interesting, if only as a socio-psychological study, and so we bought it and read —some of it. We confess that we are still somewhat bewildered as to the real object and scope of this curious nineteenth-century phenomenon.

Number 107 contains, besides the biographical notice and sundry editorials, an article on "Worms," another on "Acute Disease of the Stomach," a very genuine Love Story of the "Family Herald" type, prescriptions for the cure of "Malignant Diphtheria," and a suggestion for the cure of Rheumatism by Earthquakes, an article anent the Lesions, Etiology, Symptoms, local and general treatment of Chronic Catarrhal Gastritis, an eulogy on the therapeutic properties of "Hypnotism," a vegetarian discourse, the method of obtaining electricity from a black cat, and many other matters equally important—to the general public.

The medical articles are written in a more or less technical style—one of them is signed, Frank M. Jones, M.D.

To wind up with, there are five-and-a-half columns of small print containing tit-bits of gratuitous medical wisdom to about 140 enquirers, rejoicing in such appropriate cognomina as "Perplexed Baker," "A Lost One," "Ignoramus," "Blushing Ted," "Heart-broken Ada," and "Ignorant Sam."

The interesting ailments of these, and their hypochondriacal kindred, receive in these columns the outcome of the due consideration and clairvoyant acumen of an *anonymous* "Physician and Surgeon," the sole condition being that on the outside of each enquirer's letter shall be inscribed the magic words, "*Advice Gratis*," while there shall be enclosed within (if the sufferer requires an answer in the next issue) a Postal Order for the modest fee of one shilling.

We had meant, when we had read so far, to be very severe, but at this point criticism is, to a certain extent, disarmed by the statement that the proceeds of this column are divided among four hospitals, the names of which are given, and from each of these institutions (one of which is the Evelina Hospital) there appears this week a printed acknowledgment of the receipt of the sum of two guineas from the office of the "Family Doctor." This is something to be grateful for, no doubt; but it must not prevent us from entering a strong protest against the unfair, pernicious, and (we fear) increasing practice of prescribing for patients whom the medical adviser has never even seen, on the strength of symptoms which must be almost exclusively subjective.

Unfair, because most of these creatures can perfectly well afford, but are too mean and indolent, to place themselves under the care of a straightforward practitioner; or, if not, can have genuine advice and treatment at almost any hospital for nothing, or next to nothing.

Pernicious, because serious harm may and must be done in many cases by the loss of valuable time when actual mischief is in progress, or by the conversion of a fancied into a real disorder.

The "*Physician* and *Surgeon*," we are glad to notice, is strong in the denunciation of advertising quacks and impostors. His most crushing condemnation is summed up in the words, "I cannot find his name on the Medical Register."

For our part we ask him to repeat after us this formula: "*Down with all quacks and impostors, qualified or unqualified, registered or unregistered; may confusion overtake them, and ignominy swallow them up.*"

DRUG DABBLING.

By unsympathetic and thoughtless neighbours the Britisher is often spoken of contemptuously as rude and uncouth, both in manner and speech, and for this character his acknowledged taciturnity and self-repression are, doubtless, answerable. Whilst allowing that he is too often unsociable and repellant, we put aside, without hesitation, any theory that ascribes such shortcomings to geographical surroundings or barometric effects, plausible as this may seem at first sight. The fact of the matter is, the Englishman has internal machinery, and knows it.

Nurtured from earliest infancy in an atmosphere that reeks of the family medicine chest, what wonder is it that he introspects and tinkers himself into a stolidity which the intelligent foreigner mistakes for international rudeness. Feeding day by day on newspapers that teem with symptoms, subjective and objective, of diseases, all alarming in the highest degree, what wonder is it that his manner is less buoyant, his step less elastic, than that of people who can assimilate saveloys of more than doubtful origin, or wines without an ancestry, heedless of the damage to their internal economy.

The average Briton is a born prescriber. Naturally preferring to dose than be dosed, to give rather than to receive, he shines best in the family circle, where his Therapeutics are unimpeached and his Diagnosis final. After a careful perusal of the mysteriously initialled testimonials on the wrapper, he goes on ladling out his narcotics and anodynes to his offspring in a manner that shows more of Hope than Charity, and more of Faith than either. Maybe, now and then, a Coroner's inquest checks him for a time. A death from "misadventure," an official rebuke, a question in the House on "legalized poisoning," cause him, perhaps, just a faint suspicion of his own infallibility. But under the influence of an apologetic, persuasive Statesman, who knows the value of a three-halfpenny duty to his Budget-sheet, and of Time—the universal soothing-syrup—his doubts and fears are gently lulled, and he pursues the even tenour of his soporifics and fruit-salts in uninterrupted felicity.

Emboldened by careful study of his weekly pennyworth of medical literature, or by sedulous dippings in the case-lore of his stableman, he may aim yet higher, and deal with medical and surgical emergencies in a way to wound the susceptibilities, and stunt the banking-account of the duly-qualified. Nay more, if his country demand the sacrifice, he can, as a juryman or a Poor-law Guardian, offer suggestions of diagnosis or pathology to the belated practitioner, the originality of which leave him too thunderstruck to be thankful.

It is the sense of responsibility devolving on him that makes the Englishman so grave. When he has to keep a restraining eye on the professional prescriber, and do a little on his own account at odd times, who can marvel that his duties weigh on him?

And so the world wags on. The infantile mortality creeps up, and the practitioner's income creeps down; but the Patent Pill-man rejoices, and endows a church or a college to perpetuate his memory, and testify his indebtedness to a prescribing public. R.

Sport.

FOOTBALL.

Inter-Hospital Association Football Cup.

Final Tie.

Guy's *v.* St. Thomas'.—This match was played on Tuesday, March 29th, at Sydenham. The ground, in spite of the recent fine weather, was still rather slippery; there was but little wind.

Guy's won the toss, and elected to play with the sun at their backs. St. Thomas' kicked off, and soon worked the ball up to our goal, but E. T. Mitchell got it away, and F. H. Brown getting away had a couple of shots in close succession at goal. Next, some good play by Tulins led to St. Thomas' securing a corner, from which nothing resulted. E. J. D. Mitchell was again conspicuous in getting it away, and the ball travelled rapidly up to their end, when, after some smart passing, Holman shot a goal.

On restarting, the ball was taken into their quarters, where Mills-Roberts stopped a good shot at goal. Some loose play then ensued, which eventually resulted in a shot at our goal, which was saved by Bolus. Thomas then obtained a corner, from which Waller nearly headed the ball through; fortunately, however, it struck the post and went outside. Two more corners fell to our opponents, which kept Bolus and Mitchell busy, the ball was then got away and taken into their lines, where Mills-Roberts had to exert himself. Next, a good piece of play by Waller and Morton took the ball into our quarters, whence it was dribbled back by Holman and F. H. Brown.

The play now became very slack, Sharman being particularly conspicuous in this respect. Just before half-time, however, a piece ef combined play by Holman and the Browns might have proved dangerous, but A. T. Brown did not pass soon enough, and Davis neatly cleared their lines, and when half-time was called the ball was in Guy's territory.

On restarting, the game was for a little while confined to our quarters, till Sharman, having at last realised that he was playing in a cup tie, rushed the ball up to the centre, where he was stopped by Davis, who returned the ball. A free kick for "Hands" in front of our goal now fell to St. Thomas', but the ball was well got away by E. J. D. Mitchell. A rush of our forwards followed, in which Sharman was temporarily disabled. Holman now got away on the right, but his shot at goal was well stopped by Mills-Roberts. Even play then ensued, in which Woodhams was particularly conspicuous. Next came some good passing on our right, the result of which was two corners in succession, but Winslow handled the ball, and so the free kick relieved their lines.

Some excellent forward play by Winslow, F. H. Brown and Holman ensued; the latter, unfortunately got off side. Winslow again got the ball, and made a very good shot at goal, which Mills-Roberts was only able to save at the expense of a corner. We continued to press our opponents, until Waller and Davis made a determined rush up on their right, but were stopped by our backs.

The ball was again taken into their territory by Holman and A. T. Brown, and F. H. Brown made a good shot at goal which rebounded into play off Mills-Roberts, giving Sharman an excellent opportunity of adding to the score, which he failed to do.

We then obtained a free kick for hands and a corner, but notwithstanding failed to score.

Sharman then made a good but ineffectual shot at goal.

Winslow also became conspicuous, but Mills-Roberts could not be beaten.

Thomas' now took the ball into our quarters, but it was quickly returned. At this juncture Davis collided with C. G. Roberts, much to the former's disadvantage, a pause for breathing being allowed.

On resuming we were rather pressed by St. Thomas', an unfortunate kick by C. G. Roberts somewhat assisting them. Some good combined play on our part returned the ball to their territory. Waller and England were next seen to great advantage, causing our back division some trouble. Sharman then, by a good double, got past their backs, but spoilt his chance of scoring by kicking too hard, so that Mills-Roberts had no difficulty in clearing his lines. A final attack was made by the forwards and half-backs, but Winslow did not rise to the occasion.

Just before time was called, the ball was rushed down by their right wing, and when the whistle blew was in touch in our quarters.

We were thus still left the holders of the Association Cup, having now won it annually since its institution in 1885.

The play on the whole showed an improvement on last year's form, and the back division deserve special notice for their good defence. Holman and the two Browns were the pick of the forward division; Winslow was very indifferent except for a brief period during the second half-time—he seemed, moreover, somewhat destitute of pluck; Sharman did not seem to attach much importance to the game, his attention being apparently absorbed by a private feud: this is a great pity, as it considerably damaged the combined play of the forwards.

E. J. D. Mitchell deserves special praise for his excellent play throughout; his good judgment was mainly instrumental in preventing our opponents scoring on several occasions.

On Saturday next (April 2) we play Reigate Priory, in the Final Tie for the Surrey County Cup, at Dorking. To make even a respectable show we shall have to considerably improve on the form exhibited to day, and must be in far better training.

Our team was as follows:—H. Bolus (goal); A. C. Roberts and G. W. A. Mitchell (backs); S. Woodhams, E. J. D. Mitchell, C. G. Roberts (half-backs); H. G. Holman (capt.) and A. T. Brown (right); E. W. Sharman (centre); and W. Winslow and F. H. Brown (left).

Surrey County Association Challenge Cup. Final Tie.

Reigate Priory (holders) *v.* Guy's Hospital.—This match was played on Saturday, April 2nd, at Dorking, and after a fast game ended in a well-deserved victory for us. We were very unlucky in losing the services of F. H. Brown, due to an injury received in the match against St. Thomas', and C. D. Muspratt, who was unable to get away. Thus weakened our chances did not look very bright, but our men from first to last played a determined and good game.

Losing the toss, we kicked off with the slope in our favour, but with the wind against us. For the first few minutes we were much pressed, and had to give away some corners, but Bolus (in goal) and our backs successfully kept their charge intact. At last, from a long pass, Sharman got away, and now the game was very fast, the ball travelling from one end to the other with great rapidity. From a good run on our left, and a splendid centre from Sturges-Jones, Holman got possession, and passing their back scored a goal amid much enthusiasm.

On restarting, the game continued to be hotly contested, the two Welches and Morrison playing well together, trying in vain to break through our defence. Morrison shortly after sent in a warm shot which Bolus just managed to turn aside, falling down in the act, and before he could regain his feet another shot was made and nearly took effect, but he fisted it away and was heartily cheered for his splendid save by the spectators, of whom there must have been nearly 2,000 present.

Half-time found us still one goal to the good, and for the first quarter-of-an-hour after the kick off, we pressed Reigate very much, one shot from Holman hitting the post, and others by Winslow and Hunt only just missed their destination. Our opponents seemed to tire considerably, but at length their right wing got away, and they were round our goal for some time; we were relieved by a good run by Winslow and Sturges-Jones, who centred to Hunt, the ball being finally turned over to Holman, who passed the back, and easily scored a second goal, the goal-keeper running out to no purpose. This second reverse made our opponents play up hard, and they gave our backs plenty to do, Bolus again making some splendid scores; Holman and Sharman then relieved us by a good run, and for the last ten minutes the play was not so interesting, both sides being perceptibly tired. Our wings, however, made several long runs, and were well backed up by our halves, and when the whistle sounded we were left the winners for the first time of the Surrey Cup.

Our team consisted of:—H. B. Bolus (goal); A. C. Roberts and G. W. Mitchell (backs); E. J. D. Mitchell, A. T. Brown, C. G. Roberts (half-backs); W. Winslow, W. E. Sturges-Jones (left); E. Hunt (centre); E. W. Sharman and H. J. Holman, capt. (right); umpire, J. Henniker Prall.

Remarks.—Our team never played such a good game, and being in very fair condition completely outstayed our opponents. Bolus has never kept goal so well, and saved shot after shot which seemed certain to score. Our backs tackled extremely well, and their forwards were generally obliged to make long shots. Our halves played a capital game, both backing up the forwards well, and going back in time to help our full backs. The forwards played a passing game which was more successful than usual, and the outside wings played well and got rid of the ball generally at the right time. Sharman played up particularly well, and his runs were of great service to us.

CRICKET.

The following Matches have been arranged for the 2nd Eleven for the ensuing season:—

Date.	Against whom.	Where played.
May 4th, W.	University College School	Willesden Green.
„ 21st, S.	Wimbledon College	Wimbledon.
„ 28th, S.	Epsom College ...	Epsom.
June 8th, W.	Dulwich College II.	Dulwich.
„ 18th, S.	London International College	Isleworth.
July 6th, W.	Dulwich College ...	Dulwich.
„ 16th, S.	Wimbledon College	Wimbledon.

Guy's Hospital Gazette,
APRIL 30, 1887.

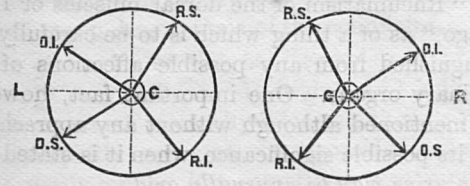
AN AID TO RECOLLECTING THE POSITION OF FALSE IMAGES, AND OF THE PUPILS IN OCULAR PARALYSES.

As the position of the false images in the various ocular paralyses is often a source of perplexity and confusion to the beginner, the accompanying diagrams have been constructed as a device or *memoria technica*, whereby the position can be instantly recollected for any given single ocular paralysis, except of the Internal or External Recti.

1. In the first place it is assumed that the pupil with which the squinting one is compared is in the centre of what we shall call its *field of movement, i.e.*, we shall regard the aperture between the lids as a plane circular surface across which the *centre of the pupil* moves in various directions during the movements of the eyeball.

2. The position of the true image (with which the position of the false one is compared) is always to be considered as straight in front of the centre of the pupil of the sound eye, and erect.

The accompanying diagram represents, approximately, the paths along which the centre of the pupil travels across the plane of movement, under the action of the obliqui and recti respectively, omitting, however, the Rectus Internus and Externus.



C. Centre of pupil in position of Rest.
R.S. Path of pupil under action of Rectus Superior.
R.I. ,, ... ,, Inferior.
O.I. ,, ... Obliquus ,,
O.S. ,, ... ,, Superior.
The dotted lines represent the median vertical, and horizontal, both in the field of movement, and of projection, in either eye.

Let now the reader imagine the above figures as drawn upon, or immediately in front of, his own eyes; and let everything to the right of the dotted vertical be described as "to the right" in either eye, and everything on the left of either vertical as "to the left"; and let the horizontal be taken as dividing "above" from "below" in all parts of the description; *then those lines which represent the path of action of any muscle in the reader's (observer's) eye, represent also the exact relative position of the false image as seen in a case of paralysis of that muscle, by the patient.*

The reader has, therefore, only to project the above diagram mentally in front of his own eye to be able instantly to recall what position a false image would be seen in by a patient having a particular paralysis; or, on the other hand, to decide, from the patient's description of the position of the image, to what paralysis it—the displacement—can be referred, it being always borne in mind that in testing for squints and displacements the patient should be directed to look with both eyes in the direction which calls into play the affected or suspected muscle; the displacements being most manifest in movements wherein the affected muscle is most concerned.

The use of the diagram may be better shewn by example; thus (discussing only paralyses of the left eye):—the line which representing the action of the *Rectus Superior* is *above* (the horizontal line); *to the right* (of the central vertical line); and has its *upper end tilted towards the right* (side of the vertical line). But in a case of paralysis of the Left Superior Rectus the position of the false image relatively to the true one, in the field of vision of the patient is *crossed* (to the right), *above* the true image, and has its *upper end tilted to the right.* Hence these correspond.

Again, a patient having strabismus of the left eye sees a false image *below* the true one, *to the left* of it, and having its *upper end tilted to the right*; to what paralysis does this correspond?

On referring to the diagram of paths projected mentally in front of one's own left eye, one at once sees that the path of the *Left Superior Oblique* corresponds to this, and it is accordingly that muscle which is assumed to be affected.

It must always be remembered that it is the paths of movement of the *observer's* eye which

correspond to the position of false images seen by the patient in paralyses of the same muscles as the path diagram indicates. Of course the diagram may be used many ways, but the above, saving as it does the trouble of substituting "right" for "left" in considering the patient's description and translating it into one's own movements, seems to be most useful.

For the purpose of investigating *squints*, the diagram is more useful if imaginarily traced in front of the patient's eye. The patient is directed to look straight upwards, or downwards; the vertical path for which simple action is due to the combined movements of the recti and obliqui. (The inferior obliquus correcting the inward drag of the superior rectus; the superior obliquus that of the lower rectus.) Hence, if one muscle fail, the centre of the pupil will travel, in endeavouring the desired movement, more or less in the direction of the path of the associated but non-paralysed muscle; and being therefore displaced to the right or left of the vertical line, and lagging behind, will form a squint named from its relative position to the other pupil, or rather from the position it actually does to that which it ought to occupy after the given effort.

Example. — On looking straight upward, a patient is seen to squint outwards and downwards with the left. To an affection of what muscle does this squint correspond? The pupil concerned lies clearly in this case to the outside of, and below, the place corresponding to that which the centre of the pupil occupies in the right eye; it is lying more or less *on the path* of the action of the *Left Inferior Obliquus* in fact. Hence we may infer that this muscle is acting without its usual associate, the *Left Superior Rectus*, which corrects its outward movement by an inward one; and the latter is, therefore, the muscle affected or paralyzed (or, a rare condition, that both are acting, only one acts excessively—in this case the inferior obliquus.) For other purposes, as, *e.g.*, to determine what squint corresponds to a given paralysis, it is only necessary to recall in the diagram, as applied to the patient's eye, the line representing not the action of the *paralyzed* muscle, but of that *associated* with it. Along this line, somewhere, the pupil will remain in the affected eye, when appropriate movement is directed to be made with both. Its position now, compared with that which corresponds, in its field of action, to the place occupied by the "healthy pupil," gives the name to the squint. If it is below where it ought to be, it is a downward; if outside also, a downward and outward squint; and so on. W. L. B.

LUMBAGO.

If we look for Lumbago in the text books we cannot fail to be struck with the meagre and indefinite character of the information which they offer us.

On referring for example to my Bristowe (not a very old edition) I find that the subject is dealt with in two lines. I learn that Lumbago is a variety of rheumatism, and that its place is among "Diseases of the Organs of Locomotion."

On turning next to Quain's dictionary I again find Lumbago to be muscular rheumatism. Here the description of its natural history lies balanced on either hand by similar accounts of "Pleurodynia" and "Cepholodynia;" and the writer is himself so much impressed by the indefiniteness of the affection that he warns us against diagnosing Lumbago, or "Simple Lumbago" as he calls it till we have carefully excluded a long list of serious causes of lumbar pains—a list which begins with renal calculus and spinal caries, and ends with "Lameness from any cause."

Dissatisfied with the Physicians, I turn to the Surgeons, and in Holmes' system I find mention of "Rheumatism of the dorsal muscles or Lumbago," as of a thing which is to be carefully distinguished from any possible affections of the urinary organs. One important fact, however, is mentioned although without any appreciation of its possible significance, when it is stated that the *urine may be unusually acid.*

Now if the above accounts contain the truth, the whole truth, and nothing but the truth, upon the subject, the word Lumbago is evidently what the Nomenclature of the Royal College of Physicians calls it, "a vague term," and nothing more.

But happily there is another account to be given of Lumbago, which certainly agrees with

facts of clinical experience, and affords at once a single and consistent explanation, both as regards pathology and treatment of the majority of the cases which come before us. This account is perhaps not entirely new, but it appears to deserve much more general recognition than it has yet received. The view I refer to is that which Dr. Fagge has adopted in his book, which, under the heading of Nephrolithiasis, he expresses his belief that "Lumbago is almost invariably the result of irritation of the kidneys by the urine, or by something deposited from it."

So then, if this view is the true one, and I believe many readers of the Guy's Gazette must have found reason in their own practice for its acceptance, Lumbago may cease to be "a vague term," and may be still made use of as a name for lithiasis in relation to the kidney and ureter. But if this is the true view, then, whether or not, it is correct to regard the lumbar muscles as organs of locomotion, and to compare their fibrous investments with synovial membranes, at any rate Lumbago is entirely out of place in a chapter on rheumatism.

It may be remarked too, that however serious may be the evils of diagnosing "Simple Lumbago," when we ought to diagnose caries of the spine or lameness, it is not an entirely unimportant error to treat with potassium, iodide and salicylic acid, an affection which has generally no better claim to be so treated than the fact that it has been christened muscular rheumatism, especially if, as is very often the case, a speedy cure follows the use of alkaline remedies.

Moreover, as a matter of fact, cases of Lumbago are not generally characterised by the vagueness and indefiniteness which so distinguishes many descriptions of the complaint.

The character of the pain complained of is generally very definite. It is dull and aching, not paroxysmal, generally bilateral, though not always equally severe on the two sides; sometimes lumbar only, but sometimes also sacral, and with occasional sciatic pain. Patients are nearly always at their worst first thing in the morning, or when they have been sitting long in one position. It is absent while quite still, and is felt when the lumbar muscles are put in action.

It is most common in Wales.

The patients are generally adult. Children, however, do suffer, not unfrequently, from excess of uric acid in the urine, and probably some of the backaches of childhood are true Lumbago.

The patients are of every social position and occupation, and living either much out of doors or indoors. Exposure to cold is generally assumed and given as the cause of an attack, but I believe that even more common is the outset of Lumbago in a person who changes his mode of life, from active out-door to sedentary in-door living without any corresponding change in diet.

The patients are often men who confess themselves to be liable to attacks of dyspepsia, with a taste in the mouth when they wake in the morning and a yellowish brown fur on the tongue, and the Lumbago often accompanies or follows such attacks.

I was about to add on the strength of certain cases known to me that a gouty family history is a common characteristic of a Lumbago patient, but I am induced to refrain by recollecting that the same has been asserted of every other known complaint, from Exostosis of the auditory meatus down to Piles and Retinitis Pigmentosa. I have not been able to discover that a rheumatic history (by which I understand a history of rheumatic fever) is frequent.

The urine passed is very commonly laden with urates, but whether so laden or clear is generally strongly acid, so that there even may be some complaint of scalding or heat on micturition. Dr. Fagge it will be noted is careful to leave the question open whether the irritation is due to the urine or to sediment deposited from it. He mentions, however, as favouring the latter view, the fact that the pain often passes off or is lessened when the patient gets out of bed in the morning, the sediment being presumably wasted away or dissolved. Perhaps, however, this fact may be equally consistent with the view that mere acidity of urine is the cause of the irritation, for it may well be supposed that while the patient is recumbent, gravity will tend to keep the renal pelves full of the acid secretion. [A similar consideration as to this action of gravity was suggested by Dr. Moxon as a possible cause of Hydronephrosis in a patient compelled to lie on one side.]

Lumbago is very often quickly cured by the administration of citrates, acetates, carbonates, &c. of soda, potash and lithia.

I have ventured thus thoroughly to emphasize this view as to the lithœmic origin of Lumbago, not because I have anything new to offer in support of it, but because, so far as I have had opportunity of judging, it is still among the "things not generally known." Such experience as I have had, however, has led me to the belief that the sooner Lumbago falls out of the chapter on diseases of the organs of locomotion, and find its way into the chapter on lithœmia beside uric acid and gravel, not very far away from gout, and not too widely distant from diseases of the liver,* the better will be the prospects of its successful treatment. Meanwhile it would be well if those who hold a rheumatic theory of Lumbago would make it more clear what meaning they attach to the word rheumatism and its corresponding adjective. Let the reader consider the following paragraph on Sciatica from Dr. Gower's Diseases of the Nervous System :— "The neuritis (in sciatica) occasionally arises by extension to the nerve of adjacent rheumatism. Thus I have known an attack of that form of lumbago which is localised in the muscles at the back of the sacrum to pass into sciatica distinctly by the *rheumatic affection of the fibrous tissues*, extending along the fascia to the nerve sheath in the neighbourhood of the sciatic notch" Upon this passage I will make no comment, but I would commend to the reader the wise sentence of John Locke (a Physician as well as a Philosopher)—"A word may be of frequent use and great credit with several authors, and be by them made use of as if it stood for some real being; but yet if he that reads cannot frame any distinct idea of that being, it is certainly to him a mere empty sound without a meaning."

R. J. RYLE.

The late Dr. Carrington.—Mrs. Carrington and family desire to express their gratitude for the very many expressions of sympathy they have received, and which they find it impossible to acknowledge individually.

* Perhaps out of deference to those who place the origin of Urea and Uric Acid in that organ, I should add "and kidney" in this place.

PATHOLOGICAL NOTES.

The following cases of Hip-joint Disease have occurred within the last few weeks, and as they present many features of interest, it may be worth while to record them.

Hip Disease.—Extensive Necrosis of Ilium.—Chronic Morphinism with Delirium.

M. 46. Illness began two years ago with pain in right groin. Some months later the pain was chiefly at the back of thigh, and considered to be sciatica. An abscess formed behind the Great Trochanter, and was opened. He gave himself morphia injections to relieve the pain—and has continued the pernicious habit ever since—a period of more than a year. Each injection causes a localized effusion, and is followed by scarring. His limbs are covered with several hundred of these marks.

After being under treatment by extension and rest for a month in bed, he developed a noisy delirium, not unlike D.T., which was followed by exhaustion and death in ten days.

Autopsy.—There is a large abscess in right iliac fossa, which leads by a tortuous track beneath Poupart's ligament, outside the vessels, to an abscess cavity between Sartorius and Vastus Externus. A second abscess runs backwards beneath the gluteus medius; while there is a third collection of pus in the pelvis from perforation of the acetabulum. No peritonitis. The head of the Femur is almost destroyed; its surface carious. Capsule much thickened. Synovial membrane pulpy and caseous. There are large sequestra in the acetabulum from necrosis of the ilium. One of these opened into the iliac fossa, and had caused the suppuration in that region. Another perforated the acetabulum, and had produced the pelvic abscess. The remainder of the ilium was inflamed and softened. Lig. teres gone. Trochanter and neck normal.

Remarks.—This seems to have been a case of primary ostitis and necrosis of the ilium, followed by suppuration and destruction of the hip. It presented none of the usual symptoms of suppuration of the hip on admission; nor was there any grating when the joint was examined under an anæsthetic, though it was obvious enough on the *post mortem* table.

Hip Disease—Suppuration—Perforation of Acetabulum—Morbus Cordis.

F., 6 years. Fell down stairs four months ago, and was taken into the Hospital soon after with symptoms of right hip disease—viz., flexion-adduction, and some inward rotation. Pelvis tilted; no real shortening; no fluctuation, but great pain and tenderness; urine normal. After nine weeks' rest and extension she was discharged in a Thomas' splint much relieved.

Re-admitted a little more than eleven weeks after the above date with great pain in hip; much emaciation; mitral bruit; urine almost solid from albumen. Died suddenly on fourth day, after almost total suppression of urine for twenty-four hours. Temperature, normal.

Autopsy.—Thickened mitral valve with some contraction; brain and viscera normal, except the kidneys, which were large, swollen, mottled, and yellowish in colour—apparently acute nephritis with fatty epithelial changes; no lardaceous degeneration; free suppuration of hip extending into pelvis; two large abscesses arising as hernia of synovial membrane through the capsule: one burrowing upwards between the gluteus medius and minimus, the other backwards beneath the tendon of the obturater externus and appearing at the outer margin of Great Trochanter; cavity of joint lined with a thick yellow "pyogenic" membrane; head of femur almost destroyed, surface carious; lig. teres gone; perforation of acetabulum just below middle of Y-shaped cartilage, though the cartilage itself was quite healthy; bone very soft and inflamed round the perforation; neck and trochanter normal.

Remarks.—This case apparently began as an ostitis of the Acetabulum, with secondary destruction of the joint. There was ½-inch real shortening when measured *post mortem*.

The amount of suppuration and disease, though no fluctuation or pyrexia, are interesting points. The cause of the albuminuria and nephritis was not made out.

Cured Left Hip Disease—Old Empyema—Extensive Burn.

F., 5 years. Was in Lydia Ward three years ago with left gluteal abscess which was drained. This was followed by left empyema for which the chest was opened. The hip disease was treated with a Bryant and subsequently a Thomas, and eight months afterwards the child could walk well without splint or stick. She was re-admitted for an extensive burn of which she died in a few hours.

Autopsy.—The left pleura was universally adherent by tough fibrous bands, but there was no cheesy matter or any other signs of the previous empyema beyond these adhesions. The other viscera were healthy.

On examination of the hip it was found fully extended, and it could be flexed through an angle of 45° or more. There was 1¾ inches shortening, and some outward rotation of the leg, but no adduction, and apparently no tilting of the pelvis.

The head of femur was much altered and very small; it seemed to be on a level with the *small* trochanter, and resting against the upper margin of the acetabulum. Hence the great trochanter was much dislocated upwards, which explains the shortening. The Acetabulum was very shallow. There was no pus or pulpy tissue in the joint, but cure had taken place by means of strong fibrous bands connecting the acetabulum with the remains of the head and great trochanter. These were chiefly directed obliquely upwards and outwards, suggesting that the weight of the pelvis in walking, in the absence of the head of the bone, had forced the acetabulum downwards. In other words, the pelvis seemed slung up to the top of the femur by these dense bands. The thickened capsule blended with the adhesions on all sides.

Cerebral Tumour. (?)

Florence Whifin, æt 12, admitted into Miriam Ward on January 31st, 1887, under the care of Dr. Taylor, for headache—sickness—optic neuritis.

Family History.—Two paternal Aunts died of phthisis.

History of Present Illness.—Has been fairly well, but for an occasional cough, up till seven weeks ago, when she began to lose her appetite and was frequently sick. She became depressed, suffered much from headache, which was so severe, that she used frequently to cry out.

She has continued in this condition, sometimes being slightly better, sometimes worse.

She has lost flesh lately. She has had vertigo and has vomited occasionally.

Condition on Admission.—Patient has a wild and staring look. She complains of pain in head, chiefly frontal. She is very thin and wasted.

Pupils widely dilated, react both to light and accommodation.

O.D's exhibit marked optic neuritis.

Nystagmus on looking to right.

No squint.

Can distinguish light and shade, but cannot see objects distinctly at a greater distance than 18 inches.

Tache cerebrale well marked.

Circulatory system—pulse, soft and irregular 96.

Respiratory system—normal.

Reflexes—Plantar, present. Patellar, very feeble. Abdominal, present. Epigastric, present. No ankle clonus.

Feb. 1st. Pot. Iod. gr. XV. Lig. Hyd. Perchlor. ♏ 80. Aq. Chloroform ad ℥ i.t.d.s.

4th. Patient very sick all day—milk diet.

5th. Sickness continues. Tr. Iodi. ♏ V. every hour for 6 hours.

6th. Patient continues very sick, much pain in abdomen. Patient cries out frequently, her cry being sharp and sudden.

Enem. Milk ℥ i.ss. Beef tea ℥ i. Brandy ℥ ss. Hot fomentations with Tr. Opii. ♏ X. to abdomen.

7th. Patient is much better; no pain in abdomen.

11th. Patient feels "quite well."

14th. Very sick again to-day.

17th. Is very much emaciated.

23rd. Patient has been in a miserable condition for last few days, continually crying and complaining of pain in back and shoulders. No headache—vomits frequently. Abdomen distended. Plantar reflex present on right, absent on left. No abdominal reflexes.

Feb. 26th. Patient's mother removed her in spite of advice to contrary. A.S.

Eight Weeks' Vomiting with Complete Stoppage of the Bowels, due to Hysteria.

A man, æt 33, was admitted into John Ward on April 14th, with a history of having passed nothing per rectum for seven weeks.

Five days before he was taken ill he swallowed a wine glass of spirits of salt, when the worse for liquor. He vomited a good deal of blood after this, but was all right next morning and went to work. Five days after he was taken ill with violent pains in the abdomen, and since the following morning has passed nothing per rectum. He has been constantly sick during this time.

On admission, the patient was perfectly sensible, and expressed himself as feeling quite well; in fact, he looked very well, but was evidently emaciated. Tongue fairly clean; temperature normal; abdomen dull all over and retracted. Examination per rectum showed the gut to be collapsed. No tumour could be felt in abdomen.

On April 15th, a doubtful swelling was detected in left hypochondriac region, and on the next day an obvious phantom tumour appeared in the situation of the left Rectus Abdominis whenever that part was examined. The patient complained of pains which varied in situation from day to day. During the week he was in he passed nothing per rectum (an enema was administered) and vomited everything but milk and beef-tea. The vomited matter was acid, showing that the food reached the stomach, and never offensive. He went out at his own request on April 23rd.

Remarks.—Dr. Hale White considered the condition to be one of Hysteria, for the following reasons:—

1. There was no evidence of any cause of obstruction.

2. The patient was remarkably well, which is hardly the condition to be expected after seven weeks' complete obstruction.

3. The patient was obviously hysterical. He thought he had something the matter in various parts of his body. He complained of the pulsation of his abdominal aorta; and developed a phantom tumour.

His sister died after five months' constipation, which fact very likely turned his mind in that direction.

The case is interesting as occurring in a male, and as illustrating one of the most serious conditions due to Hysteria. A. S. T.

The Concert given at the Bridge House Hotel, on Wednesday, April 20th, in aid of the Special Appeal Fund, was a great success, the large hall being filled to the door with an appreciative audience, who warmly testified their approval of the pieces rendered by demanding repeated encores. What made it more enjoyable was the fact that all the artistes gave their services to the cause, and did their part admirably. We were glad to see amongst those present the Treasurer, Mrs. Lushington, the Reverend Mrs. Thompson of St. Saviour's, Mr. Gainsford, and other well-known ladies and gentlemen interested in the Hospital. Mr. Grattan is to be congratulated on the success of the concert.

Passim.

If we have, in these last two numbers, indulged in more light literature than clinical observation, our readers must remember it is vacation time,—a reflection which may also stimulate contributors who are enjoying *far niente*.

Readers of *Fagge* who may have been struck with the absence of any reference to the Pancreas, in that otherwise comprehensive and excellent treatise, may supplement the deficiency by a perusal of a paper by Dr. Senn on the Surgery of that organ (*Internat. Journ. Med. Sci.*, July and Oct. 1886, Jan. 1887), to which we were led by an exceedingly good abstract of it in *The Medical Chronicle* (March, 1887). The sudden death, produced in several cases, in apparently strong and healthy adults, by hæmorrhage into the pancreas, quoted from Zenker (in Ziegler's pathology), makes this viscus more interesting, as well as important, from a Medico-legal (and Examination) point of view. The effusion may follow upon diffused acute Pancreatitis, or from ulceration of a vessel into some cyst cavity. Zenker thought the sudden collapse due to pressure on the solar plœus. Dr. Senn rejects this view, without however offering any other. The practical aspects of the paper are, that Chronic Inflammation and growths of the Pancreas may produce cicatricial obstruction of the Common Duct—requiring some such operation as Chole— or Duodeno-Chole-cystotomy; that a Gangrenous Pancreas (after acute inflammation) had better be removed by Laparotomy; that abscesses may be drained externally; that calculi in the duct of Wirsung should be attempted to be forced on into the duodenum, if possible, before removing by incision; and that cysts are better treated by drainage than removal. But nearly all these conditions are only diagnosable after abdominal section.

A correspondent has sent us the following exalted strain, and states that he is able to supply more if wanted:—

There are 34 Extracts in that Pharmacopœia,
And First the *Green or Fresh* ones come to view:
Juice is collected, as it would appear,
And to One hundred and Thirty heated, so to clear
The Colour Green; and next to Hundreds Two,
Albumin-coagulating; filtering then,
Evaporate unto a syrup thin,
Not going above One-Forty, and then you
Throw the Green, previously separated, in
Heating until it becomes a proper stew!
Such are Aconite, Belladonna, Conium—A, B, C—
And Hyoscyamus, and Lactucœ;
But, for Colchici, and Taraxacum,
At once by boiling you extractses 'em,
Making the final mixty
At 160°!!

He is now delirious.

We are trying to revive ourselves at the "Ship and Shovel."

Green Extracts.

Les Bacteries, *et leur rôle, &c., A.V. Cornil et V. Babes, 3me Ed. Paris, 1887.*

(continued.)

THE BACTERIDIAN STRUGGLE FOR EXISTENCE, AND "PROPHYLAXINATION."

In our first extract we were led to suggest that among Bacteria, if among any living organisms, the evolution of species by natural selection ought to find the earliest and readiest evidence, since the life-cycles of the individuals are so small, and the number of individuals to make observations upon so large. And although the conversion of the Bacillus of Charbon into that of Hay had been described, yet we were obliged to learn reluctantly that possibly inaccurate observations or conclusions were strong grounds for hesitating to accept this as a fact. Of the adaptation of living organisms to circumstances, and the reaction upon them of their surroundings, the Bacteridian tribes offer, however, abundant and interesting examples. And of our author's remarks on this subject (the reproduction of an essay by *M. Babes* in *Les Connaissances Médicales*, for Oct., 1885), we here present the most striking.

Various conditions such as heat and cold, oxygen in excess or deficiency, the previous exhaustion of the soil by a similar or different species, tend to enfeeble the germinative power, and the special chromogenic or pathogenic properties of a given microbe. So the micrococcus prodigiosus cultivated time after time on the same gelatine, will grow, but more feebly, and less strongly coloured each time, until at last white. Now sow it on potato; and it regains its former vigour. The best way of stopping the growth of one species, however, is contact with others. Producing different decompositions of the medium, a state of things is at last arrived

at when all but one tribe or so have succumbed to the unfavourable influence of the product; and the continual increase of this, though it be its own, at last at a certain limit checks the growth of the survivor, until removed. This is the barrier nature sets against the interminable multiplication of microbes. In this way perhaps man gains too an immunity from many invaders.

With a view to gaining some means of thus utilising one species to antagonise another Babes made experiments. The results differed according as species were sown upon the same plaque together or at different intervals. When two varieties were planted on one plate of gelatine, they both either grew equally well and in distinct colonies, but both smaller than if sown apart, or one rapidly outstripped and caused the suppression of the other. In sowing one after another, both the chemical and vital reactions are brought out. That there is a distinct *vital* influence exerted by one species on another he shewed, by cultivating a variety first in a tube of serum where other species had been and still were growing; and then in a similar tube sterilised but containing the previous growth and products still. The results were very different. In this way *cholera bacteria* were found to grow well in old cultures of pneumonia, blue milk, staphylococcus aureus, charbon and cholera, when these had been sterilised. But old cultures of micrococcus prodigiosus, or putrefactive bacteria (bac-termo) completely prevented any growth of cholero bacilli. In observing the influence of living cultures upon each other, Babes employed a very pretty and ingenious method. A species was sown in a large circle on a plaque of agar with the usual platinum wire, and left for a week or month as desired; round the first clear circle of growth, other varieties or species were sown in parallel striæ at intervals; and the influence, if any, exerted by them and the first circle upon each other noticed. In this way the cocci of Pneumonia were found to have little or no influence on species sown near the circle; charbon grew well sown in striæ close to it. Were Pneumonia cocci sown in striæ near a charbon circle, however, they failed to develop, which shows the superior vitality of the charbon bacillus. M. Prodigiosus grew uninfluenced by charbon. Pneumococci sown within a Pneumonia circle of 3 weeks date, were very ill developed; similarly cholera grew less well in its neighbourhood.

The Blue Pus bacillus, in a fifteen-day Pneumonia circle, grew well enough, but were colourless; that of Blue Milk acted similarly; the Micrococcus Indicus preserved its colour. Neither of the last two grew well inside an old circle of Blue Milk bacilli.

Similarly, inside an eight-day blue-pus circle neither cholera, blue milk, pneumonia, nor charbon, made any growth, and Indicus grew colourless; and a short-rod bacterium of putrefaction, not liquifying gelatine, and setting free a putrid odour, was found to totally prevent the development of all the others, having a smaller influence over Indicus. In an eight-day cholera circle a new sowing grows more feebly; a second, on the fifteenth day, hardly at all.

Of course the quantity of bacteria sown in each circle or stroke is variable, and may lead to fallacy; but the general result of these most important and interesting experiments remains the same, showing that here is a most powerful means of throwing light upon what may in the not far distant future be a potent means of treating Invasive disorders. The loss of colour by some species is a ready sign of the profound change they must have undergone; but the pathogenic properties of certain kinds have already been demonstrated to have been sensibly altered. And these alterations afford by means of the attenuation of virus, or its aggravation, the explanation of Edward Jenner's, so long past, and so long-practised discovery, and the clue perhaps to the treatment of many other diseases by similar *prophylaxination*, if one may coin a word in time to save absurdity of diction.

If, on an old Charbon culture, fresh germs are sown, these grow: but inoculated upon animals, the culture produces either no disease, or Charbon in a very mild form. Re-sown on its ordinary medium, the culture regains its virulence. A mouse inoculated with the attenuated culture died in 5 days; a second, infected with the blood of the first, in 3 days; another, inoculated from the last, died of typical charbon in 4 hours. Is "immunity" gained in this fashion, MM. Cornil and Babes enquire? They prefer rather to think at present that although this may be, yet the cells of the living organism undergo some change after the first invasion, which enables them better to resist a second. In a chapter devoted to the consideration of "attenuation," they give a brief sketch of the history of discoveries in that connexion, and the methods of producing it. Pasteur's method, by prolonged exposure to oxygen (Trans. Internat. Med. Congr. Lond. 1881. Vol. I.), yielded him virus of Fowl Cholera, so altered that it reproduced the malady when inoculated with diminishing degrees and severity, as it was taken after successively longer periods of exposure. Each of these different-aged cultures, sown on fresh sterilised *bouillon*, reproduced a culture of the same strength as itself. Pasteur attributed the change to the action of the oxygen directly; since a culture of Charbon, which is aërobious, if sealed in a tube, after having exhausted the available oxygen contained in it, instead of thereafter growing feebler, remains in statu quo for an indefinite time, ready to grow on obtaining oxygen again.

Bacilli of Charbon will not grow above 45° C; at 42°-43° C they do not fructify, so that a spore-free cultivation may be obtained by inoculation at this temperature, at which it is found indeed to gradually attenuate, and, after some months, die. During this period the culture yields a series of attenuated virulencies, affording a means of prophylaxis against the severe disease by inoculating the animals with correspondingly milder types of it. Temperature and antiseptics have been found capable of producing

some attenuation in Charbon bacilli, and Sulphuric Acid (2 %) renders the spores themselves feebler after inoculation.

Another means of attenuation rests simply on the alteration the virus may undergo in animals; being after transmission through some species increased, in others diminished, in virulence. In this way by transmission through monkeys, Pasteur, re-inoculating dogs from the brain of the former, prophylaxinated them against hydrophobia. Later, he found that gradual desiccation of the spinal cord, and brain of inoculated guinea-pigs reduced the activity of the virus by degrees; so that inoculating men with cultures of successively increasing potency he is able not only to give them a prophylaxine against, but even to cure hydrophobia, although the dread micro-organism its producer has neither yet been certainly isolated nor grown pure.

However, all species of microbes are not hampered with this quality so fortunate for man, of retarding by their results or products in a culture, a future growth of the same kind there. In many infectious maladies the first attack "predisposes" to another, *e.g.*, pneumonia, erysipelas, gonorrhœa, soft chancre, and intermittent fever, and, according to *Koch*, tubercle—local tuberculosis, lupus, tuberculous arthritis, or strumous adenitis, predisposing to general pulmonary tuberculosis, be it not acquired for six or ten years after. The authors cite experiments of their own which show that local tuberculosis certainly has no beneficial effect against inoculation with Koch's bacillus generally. In referring to Cantani's attempt to treat phthisis with inhalations of *Bacterium termo*, the authors consider that it would have been better to observe whether the pure cultures influenced each other in any way first. The results were at any rate inconclusive.

A brief and clear account of maladies produced in animals by experiment concludes the first part of the Treatise. The rest is concerned with the infectious diseases common among animals, and those due to specific microbes in man. With regard to the latter, we can only note that MM. Cornil and Babes completely agree with and confirm the results, and figure the comma-bacillus of *Koch*. This may be compared with certain bacilli found normally (by Rosbach) in stools, one of which is also curved, but gives different culture cloud-forms; which are the only, the authors think, reliable characteristics of such small objects. An interesting fact, also, is the description of a bacillus found in the smegma of the genitalia, corresponding almost identically in form, and cultures, with those described as special to syphilis. The origin of that disease, it suggests, is not far to seek. But while space forbids us to extract more, we heartily recommend the perusal of this most suggestively-interesting, even luxurious, volume to all who like thorough scientific work, good bibliography, excellent print, and magnificent illustrations. In Bacteriology we know no authority more concise and comprehensive.

LEONARD BRADDON.

PROGNOSIS.

It has often struck me when I have formed one of a group of bystanders around the bed of some interesting sufferer, what a splendid example of what we call in Greek tragedy "*Irony*," is afforded by the discussion which has been taking place. To the patient our questions and answers are (let us hope) a mere string of meaningless jargon, very learned, very abstruse, and in some vague indefinite manner, he hopes, beneficial—but of no immediate interest to himself.

He is pleasantly conscious of being an object of acute investigation, a centre of absorbing interest, and he feels that we, who so evidently know all about him, must possess the secret of curing his malady, for he has often heard that knowledge and power are synonymous terms. So he assumes (if he is not too ill) an expression which is compounded of anxious faith and a sublime consciousness of a newly-acquired importance—the importance, if he only knew it, of a valuable pathological specimen.

He does not know that the "*bruit de pot fêlé*" which he exhibits with so much complacency, is prized by us not so much for its intrinsic musical qualities, but as the symbol and token of a yawning cavity within an organ of much practical importance to his organism, a cavity the knowledge of whose existence does not affect our utter helplessness to replace it by healthy tissue.

He is sure, and rightly sure, that we shall do our best for him, but it never enters into his head that the prognosis which we are so calmly (but in carefully mystified terms) discussing, is the pronouncement of a sentence which admits of no reprieval, and no change of expression marks his appreciation of what actually amounts to the declaration that his wife will shortly become a widow, his children fatherless—while we shall console ourselves for the failure of our therapeutic remedies by the establishment of our diagnosis and the confirmation of our predictions. He does not recognize the important fact that, to the Student of Medicine, every patient represents interests of two conflicting kinds, and this while especially the case in hospital practice, where our patients are not our personal friends, is also true of all medical study.

The first of these interests (the practically important one and the only one I fear in which our patient would sympathise with us) is represented by the question, "*What can we do for him*"? The second, in fact, has to us the same kind of attraction as the chess-player feels in his problem:—"White to play and mate in so many moves." Given a patient of a certain age, with a certain constitution to start with, affected with a specified disease, at a certain stage, under known conditions therapeutic or hygienic: What will be the course of his malady, what intercurrent affections will complicate his disorder, how long has he to live, how will he die, and lastly—what shall we expect to find?

In other words—what moves will be made, what pieces will be taken and lost, and what the final position of the men on the board?

Such enquiries as these are perfectly legitimate, but the terrible significance of their replies should always be borne in mind.

"W."

HIAWATHA'S DRESSING.

Should you ask me for a reason,
For a reasonable reason,
Why these words of mazy meaning,
Are presented for inspection
To your keen examination,
To your deep and full surveying,
And your hypercriticisms,
I should answer, I should tell you,
That I hate a man who worries,
And who bothers, and who flurries,
Both himself and other people,
For unreasonable reasons.

On the first of showery April,
Ere the shadow on the dial,
Yet has pointed with dark finger,
To the tenth hour on the circle;
See with hurried steps and eager,
Pass beneath the grimy portals
Of the well-beloved Guyana,
The but newly-born Full Dresser.

Mark him stride beneath the arches,
With his bag, and his umbrella,
And his air of sweet importance,
Fitting well the lofty station,
He successfully has climbed to.

Could you make a neat dissection,
At this moment, at this instant,
On the left side of his thorax.
And expose his pericardium;
You would see with pious horror,
What a quick and strong pulsation,
Was transmitted through that membrane
From the organ underlying.
As with pardonable grandeur,
All unasked and uninvited.
Now he widely swings the portal
Of that true "sanctum, sanctorum,"
And beholds outstretched before him,
[Metaphorically speaking]
Rounded arms, and snowy bosom,
Of his six-month Alma Mater.

Once again, behold him wandering,
Robed in gaberdine senescent,
[Anglicé—"an ancient jacket"]
Armed with forceps and with scissors,
His grim instruments of torture.
[And perchance a simple flower,
Just to shew a milder nature,
Still is latently within him.]
In the colonnade a moment,
See him dally, see him linger,
To be envied, or be worshipped,
As the golden calf in scripture.

Now remove the pericardium,
And all naked, and uncovered,
Lies his throbbing heart before you;
As with hesitating footsteps,
On the threshold of his duties.
Having passed the horrid gateway,
He does reverence to the Sister,
Makes his dutiful obeisance,
And receives in gracious manner,
As acknowledgment thereunto,
A slight nod, or glance suspicious.

With alacrity how charming,
See him lastly now, and quickly,
Build a tented wall around him;
Cut the many folded bandage,
Tear the closely clinging plaster,
And with gentle hand and tender,
[Albeit not without a tremor]
Ply the germ-destroying lotion.

Now with bated breath, and rapid,
And with copious perspiration,
See him tread within the footsteps,
Of his newly-gotten master.
With what brotherly affection!
With what sisterly devotion!
With what motherly attachment!
He reiterates the statement,
Of the Patient's then condition.

Thus we leave him, now with sorrow,
For we dare not follow further,
Lest the echo of our jargon,
Should perplex, or should annoy him.

Could we see him shortly after,
[Shall we say perchance—September]
What a change of form, and wonder!
He a chrysalis no longer.

"FARRAGO."

April 1st, 1887.

Correspondence.

THE ADVENTURES OF A PENNY.

Dear Mr. Editor,—My only apology for troubling you with my misfortunes is the consideration that they may perhaps serve as a warning to any of your readers who may be of too scheming a disposition.

I am no miser, Sir, for I value a coin not for what it is, but for what it will purchase; and when a coin will purchase nothing it ceases to have any claim on my affection; I long to get rid of it. But being endowed by Nature with a thrifty soul, it irks me to part with anything, even a French penny, without an endeavour to obtain somewhat in return. When, therefore, some days since I heard that these French coins were no longer a legal tender, my thrifty soul was troubled within me; my hand faltered as it made its way to the bottom of my

right hand trouser's pocket; and my worst suspicions were realised when I drew it out and found that it contained two sixpences, a farthing, and a French penny.

Since that time my peace of mind has quite vanished. And every night I have tossed for hours in my bed devising plans to get rid of the accursed coin without undergoing any pecuniary loss; and every day I have spent hours putting those plans into execution. At first I thought I should find the matter easy enough; so I went to a post office and bought a stamp, but they at once returned my coin and demanded an English one. Then I tried the shops, but with no better success. Then I began to be more artful: I bought an ounce of tobacco and paid for it with four English pennies and the French one in the middle; but I was not quick enough in decamping before they discovered my artifice. This trick I tried at several other shops, but with the same result. At the last shop at which I tried it I bought some writing paper, and paid for it with a sixpenny-piece and six coppers, among which, of course, was the French one. This time I really thought I had succeeded; as soon as I had put down the money, I turned round and with two strides was out of the door, and then set off running down the street. But when I stopped to take breath I found that in my haste I had left my paper behind.

I gave up the shops, and tried the match and newspaper boys; but they were sharper than all the shopkeepers, and I soon perceived I should have no chance with them.

I was in despair. But at last a brilliant idea occurred to me: I would give it to a waiter. So I dined one day in the City at a strange restaurant, The waiter brought my bill when I had finished—one and sixpence. I paid him. And then as I rose to go, I drew out the detestable coin and placed it in his palm. I looked not at him, but stalked majestically to the door, for I did not suppose he would give me much thanks for the fee. He stepped past me, however, and opened the door for me to pass out. This attention surprised me; but I stepped out in a dignified way, and hailed a 'bus and rode home, congratulating myself on having got rid of my bugbear at last.

When I alighted I paid the conductor the penny for the fare; but he astonished me by returning it with the remark that he didn't take foreign coins. A dreadful suspicion entered my mind; I hurriedly took back the rejected coin, gave the man sixpence, and pocketing the fivepence change, strode off. Then I examined my cash. Horrible fate! I had given that waiter a two-shilling-piece; and of the five pennies which that base conductor had given me, four were French.

This awful blow affected me so severely that I was laid up for a week. When I recovered I determined to submit to my fate, and make a virtue of necessity. So I bought a money box, and dropped my five pennies into it. I am going to do the same with any other foreign coin I may have the misfortune to receive; and then by and by I shall send my little collection to the Guy's Hospital Fund.—I am, Sir, yours obediently,

SAPLEY TIZZLEHIDE.

PIPES:

THEIR ORIGIN, INSERTION, TOBACCO-SUPPLY, AND ACTION.

The early history of pipes is wrapped in considerable obscurity. Some have been inclined to ascribe their invention to Raleigh himself, the immortal introducer of tobacco into this country. We think this view is hardly tenable, and, indeed, shall adduce considerations which point to the pipe as being a far older institution than this would imply. We in no wise wish to lessen the honour due to Raleigh. No man's memory stands higher in our estimation; we hope his spirit has attained to some happy bourne where tobacco blooms perennially. But it irks us, as lovers of justice, to accredit any man, however honoured, with honours which properly do not belong to him.

Perhaps the earliest mention of pipes in literature occurs in the fine old ballad written of that king of roysterers, Old King Cole, who, says the bard,

> "Called for his pipe, and called for his can, and
> called for his fiddlers three."

Of what realms and in what century Cole was king tradition does not state. But there can be little doubt, from authentic documents in the author's possession, written in the primitive cuneiform character, and having all the appearance of an unreceipted tavern bill in the said king's name—there can be little doubt that Old King Cole lived, and therefore that pipes existed at a much earlier period than has been commonly supposed.

But we may go further. It seems to us that the story of Prometheus has hitherto been grossly misunderstood by classical investigators. Prometheus, we learn, stole fire from heaven, and conveyed it to earth *at the end of a rod*. Could anything be more suggestive? What does this story symbolise but the introduction into mundane regions of pipes, of tobacco, and of the art of smoking? At the time when the incident happened, the word "*pipe*" was, *of course, unknown to historians*. If we suppose Prometheus to have executed his daring felony by means of that kind of pipe known by the name of "Churchwarden," must it not have appeared to the spectators that he was actually, as reported, conveying fire from heaven to earth at the end of a rod? In this case, if our speculation be correct, the pipe is a divine and not a human invention. And, indeed, is it not an invention worthy of a god—so simple, yet so perfectly adapted to the use for which it was designed? Is there not here another example of that wonderful correlation between structure and function which characterises the human form divine and every other creation of the Olympian intelligence? As we reflect, that which we called just now a speculation approaches nearer to a conviction. Surely it is not difficult to conceive that the dwellers in Elysium should vary their nectar with an occasional whiff o' the weed. Elysium would be so much less Elysium without it. Just as we picture the

blooming and beautiful Hebe tripping from couch to couch in the Olympian lounge-room and dispensing generous nectar to the drowsing deities, so may we with equal propriety picture the dusky but equally beautiful nymph Nicotia engaged upon a similar duty, replenishing the pipes with whatever brand of tobacco each several deity affects. We almost think we can guess their various weaknesses. Cut Cavendish for the sooty Vulcan; Latokia for the dainty Apollo; Honeydew for the Thunderer himself; Mars, we fancy, being a military deity, would disdain anything but a choice cigar; while Mercury, light trifler, would prefer a cigarette to a pipe. And what tobaccos they must smoke on Olympus! Grown in Elysian fields, dried under Apollo's special supervision, and manufactured in Olympian factories! It makes one faint with longing to think of it. But to return.

Having traced the pipe to pre-Promethean times and to Elysian regions, we find ourselves compelled to stop. The whole subject requires further investigation, and we must content ourselves with the conclusion that the pipe was the invention of a deity (doubtless held on that account in high estimation among his peers); but who that deity was, and when and how he executed his divine conception, must be left for later investigators to determine (with apologies to an eminent physiologist). So much, then, for the origin of the pipe.

How are pipes to be classified? Let us see. First, there is the favourite pipe—the pipe that has been with us in all our wanderings, that has comforted our solitudes, that has rejoiced with us in our social pleasures; the pipe we love, that has no trick of "going out" when our attention is directed elsewhere, that adapts itself so well to the irregularities of our own peculiar oral aperture, supplying so comfortably the place once occupied by a late lamented incisor or canine; the pipe we would not lose for a kingdom, that we always carry about with us, our luck, our pipe of pipes, our bosom pipe. Its exact appearance cannot be described, for it is of that shape and pattern which best pleaseth the possessor. Then there is the new pipe, the smoker's aversion. It is generally employed for lending purposes. This brings us to speak of the borrowing pipe, which is—well, in a word—large. It need have no special mark of beauty, no ornate mountings, no costly amber mouth-piece, but it must be large. Then there is the foul pipe, which is unpleasant to all in its vicinity, and is typical of its possessor. Then there is the short cutty. Though unable to speak from personal experience, observation has led us to conclude that there must be much comfort in a short cutty. Then there is the long pipe, the Churchwarden, which might well be re-christened the Promethean pipe. There are many other kinds of pipe, we must add but one more—the hookah. O, safe dispenser of dreamy delight, we fear we have done wrong to name thee last. Pardon, pardon! we will atone, and a right royal sacrificial offering of choicest leaf shall soon yield up in clouds its soul to bubble through thy perfumed waters.

Now as to the filling of pipes. Not a little art is required to fill a pipe as it should be filled. This may surprise some, but it is true. We think the question of the mother to her son, who was anxious to enter into matrimony,

"Can she make a feather bed, my boy Billy?"

should be changed to, "Can she fill a baccy pipe, &c." For look you, if the pipe be packed too tight, it must needs be unpacked and re-packed, which is the fault neither of the pipe nor of the tobacco, but of the packer. One has to be guided by the kind of tobacco. Who, but an unpractised hand, would think of packing a fine-cut as close as a coarse-cut tobacco? Unless, indeed, it come from a friend's pouch, when I grant you a little extra packing *is* desirable. Again, if the tobacco protrude beyond the margin of the bowl, you will find it hard to light your pipe; while if it reach not up to the margin, marry, 'tis but half a pipe.

We have already dwelt upon the perfect adaptability of the pipe to its intended use, but there are certain other uses which it admirably subserves. There is the pipe as a Stethoscope. The ordinary briar makes a capital stethoscope of the old type; and the Hookah, one of the modern flexible type. Here is a little romance for you. Tom Sawyer, of Guy's (son of Bob), on his way to the Antipodes is wrecked on a savage island, and finds himself with nothing but a pipe, falls in with a tribe of cannibals, who advance upon him flourishing boomerang, tomahawk, bow-string and battering ram. Being a youth of great presence of mind, he at once produces his pipe and stethoscopes the chief; thereupon is appointed Physician in ordinary to the Royal family (including fifteen hundred wives), speedily makes his fortune, rises in the social scale, and dies, the honoured King of the Cannibal Island. Which clearly demonstrates the efficiency of the Pipe as a Stethoscope. Another use the pipe may serve is that of a pistol. This seems strange, but let us relate an adventure which befel ourself. Walking down a lonely road one night we were suddenly beset by a troop of banditti, who demanded our purse (do not laugh, though it would certainly have been a good joke to have let them have it). We were equal to the occasion, and producing from our pocket a stout pipe of the bull-dog pattern, grasped the bowl and threatened the head of the nearest bandit with the mouth-piece. Never suspecting the trick the whole crew at once turned tail and left us in possession of the field. Since when we are never without a bull-dog pipe. We dare the charge of vainness in relating a tale so creditable to ourself. Other uses of the pipe suggest themselves to our mind, but time presses and we must draw our meditation to a close.

NICK O'SHEA.

NOTICE TO CORRESPONDENTS.

The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Guy's Hospital Gazette,

MAY 14, 1887.

ON TWO CASES OF DIPHTHERIA.

Notes from a Clinical Lecture, by DR. FAGGE.

Dr. Fagge first read the reports of two cases which had recently been admitted, with urgent dyspnœa. The patients were brother and sister. Both were tracheotomised. In one only was evident membrane found. One had albuminuria; in the other the condition of the urine was not able to be tested. In neither case was there any membrane on the pharynx. The apparent contagiousness and the existence of albumen in the urine at least of one child made it probable that the disease they were suffering from was diphtheria.

In every case in which a child comes under observation suffering from "croupy" symptoms, it is essential before arriving at a diagnosis of croup to exclude the following conditions:—

Laryngismus stridulus.

There is really very little resemblance. Briefly, the condition is this. A rachitic child (probably with craniotabes) suddenly holds its breath for a longer or shorter interval and then takes a long crowing inspiration and is all right. This affection always causes great alarm to the parents, and in rare cases it has certainly proved fatal.

Be quite sure the trouble is in the larynx by exploring the throat with your finger, and thus exclude

Post pharyngeal abscess.

Post pharyngeal tumour. (This is rare, and is either a lipoma or lymphoma.)

In these cases the history of dyspnœa is generally very long.

Then having excluded *foreign body* as the cause, it is necessary to differentiate between the three varieties of croup—

Spurious croup.

Membranous croup.

Laryngeal diphtheria.

Spurious croup generally attacks a healthy child quickly, the severe symptoms reach their acme and more or less suddenly defervesce in three or four hours. The child is left only a little hoarse. There is great tendency to repetition. The severity of the spasmodic as compared with the purely obstructive symptoms is a marked feature. The speaking voice is generally retained, though hoarse. The disease is probably of an inflammatory character and the prognosis is good. There is no evidence that this variety of croup ever goes on into true membranous laryngitis, and so rarely is it fatal that though its existence cannot be doubted clinically, it is practically unsupported by post mortem evidence. With reference to the laryngeal obstruction which is associated with the formation of membrane, it has been stated that differential diagnosis between membranous croup and diphtheria can be arrived at by the presence of severe constitutional symptoms in the latter disease. These are by no means universally present, and Dr. Fagge instanced an attack of diphtheria which he himself contracted whilst examining a patient's throat, and during the whole course of which he felt perfectly able to perform his ordinary duties.

Neither clinically nor pathologically is it possible to distinguish between diphtheria and membranous croup? But are they the same disease? Those who assert they are base their argument chiefly on the supposed fact that simple non-diphtheritic inflammations of mucous membranes, unlike those of serous membranes, do not cause a deposition of lymph on the surface. Opposed to this is the fact that numerous cases are on record in which a membranous inflammation indistinguishable from true diphtheria has been set up by scalds and foreign bodies. Most of these cases have been subjected to surgical treatment in the way of tracheotomy, and efforts at extraction of the foreign body, and there is, therefore, a very slight possibility of infection by spatulæ, tracheotomy tubes, &c.

But cases of so-called idiopathic plastic bronchitis and tracheitis are not complicated by this suspicion, and the existence of a simple membranous inflammation of a mucous membrane, is practically established. Another strong

point in favour of the non-identity of these forms of croup is that in diphtheria epidemics only in about one case in thirty does the pharynx escape implication in the disease, whereas in the sporadic cases of membranous laryngitis a large majority have the membrane restricted to the larynx.

The frequency with which in true diphtheria, the disease having declared itself in the pharynx, the larynx becomes subsequently affected, is so various in different epidemics that no conclusions can be drawn. The date on which the larynx thus becomes affected is stated by Sir William Jenner to be rare after the third day and never after the seventh. In Dr. Fagge's practice it had occurred both on the eighth and on the tenth day.

L. E. S.

THE PRINCIPLES AND PRACTICE OF MEDICINE.

In these cultivated latter days, when ability is a poor substitute for cheek, and honest principles are a drug in the market, the misguided practitioner who trusts to a red lamp and a decent professional education to earn his bread and cheese, soon learns what an expanse of blank he has drawn in the lottery of life. The proud possessor of a registrable qualification sallies forth and hoists his red signal, and thinks he has solved the problem of self-preservation straightaway. Backed up by a measure of confidence in his own capabilities, and blessed with a good digestion, he is pleasingly hopeful and contented; and on the strength of the mental repose inspirited by his prospective prosperity, he eats and sleeps with the heartiness and vigour of a Cossack. All is joy and peace, rosy anticipation and good living, until the scarcity of calls from anybody but bill-bearing tradesmen, begins to dwindle away his day-dreams and his ready money.

Alas! What a saddening revelation awaits him, when he looks around carefully, to note the essentials of success in the practice of his profession. Quackery everywhere. At one time offensively self-assertive and openly hostile, at another sneakingly insidious—almost apologetic—in it meanness. Now it is the open fraud of the wholesale Pill-man; now the subtle swindle of the qualified quack. And of the two, the methods of the former are less contemptible than those of the qualified impostor, who makes no more of elbowing Nature out of her place, than he does of gathering up stones for a fallen brother, or guineas from an imaginative patient.

We might overlook the unlicensed, and generally transparent, fraud of the lay quack, but we can hardly be expected to think leniently of men who are qualified to practise respectable medicine, but who prefer instead to prostitute talent and self-respect to filthy lucre. It may be the best policy to humour the whims, and acquiesce in the superstitions, of a capricious, and often pig-headed, public; but if so, honesty is *not* the best policy, and another fine old crusted maxim has received its death-blow. To be rich is, doubtless, one of the very many desirable things in this world, but to build up a balance at the bankers by working on the credulity and ignorance of the lay mind is a form of confidence-trick, that merits the attention of the hangman.

That Quackery in its Protean forms will ever die a natural death, we are not for one moment sanguine enough to believe. There is a fairly constant relation between demand and supply all the world over; and whilst there are Fools with imaginary ailments, there will always be an adequate supply of Knaves on hand with equally imaginary specifics. And whilst there are people with a weakness for Therapeutic systems, there will always be scores of practitioners ready to whittle their principles to any extent to suit the need.

Some of the public like what they are pleased to call *methodical* medicine. And, as a consequence, men rise to affluence on attenuated pilules and droplets, and the whole practice of Medicine is bundled into three Latin words—*similia similibus curantur*—on the authority of a German druggist, who blossomed into notoriety owing to the risks connected with Lunacy certificates in his time. Others like their prescriptions in print, and at once the "Medical Editor" supplies the need. He doles out Hygienic hints and harmless drugs to anonymous and distant correspondents with an instinct truly marvellous. And it is not until we see his fee and place of consultation, sneaking in at some odd corner, that we begin to doubt his philanthropy, and reckon him also amongst the time-servers. Others again, of more robust temperament, like to grasp the significance and treatment of their ailments for themselves. And it was for such people as these that that fiend in book-form—the quasi-medical treatise—was first devised. Extensively advertised, and sedulously puffed, it soon fulfils its mission, and draws the bewildered, but admiring, reader to the address of the eminent author, which, for future reference, always hangs, leech-like, to the Preface.

Cheated out of his rights by tricks such as these, and by scores of others that lurk away in the dark corners of private practice, it is but natural that the young practitioner should often find it a hard matter to keep body and soul together. But after all, success in the long run is pretty sure to follow the straightforward practice of straightforward principles. And moderate success, with a clear conscience and an unblemished reputation, is at all times preferable to practice, however successful, conducted on principles which, in humbler walks in life, lead by easy stages to the gallows.

VIATOR.

Physical Society.

ELEVENTH MEETING, May 5.

Dr. Wilks in the Chair.

Mr. Campbell read a paper on "Diabetes."

ABSTRACT OF PAPER.

Diabetes is a comparatively rare disease, strikingly common in some countries, especially those in which fresh vegetables form the staple food, as in Ireland and Thuringia; its geographical distribution is very wide, and is apparently unaffected by climate, but is to some extent influenced by race.

It was recognised as a disease before the Vedas were committed to writing; known to the ancient Greeks; and in all times has attracted an amount of attention by no means corresponding either with the frequency of its occurrence or the success of its treatment.

It is characterised essentially by the excretion of sugar from the body, accompanied, at least in youth or early middle age, by wasting and polyuria, and frequently associated with nervous symptoms.

Heredity, gout and insanity in parents may be mentioned as having some causal connection with it, and it has been brought on not infrequently by nervous shock or injury to the higher centres as the result of falls, blows on the head, &c.

As complications, gangrene, phthisis, pneumonia, carbuncle, &c., may be mentioned, and many cases terminate fatally from one or more of these supervening before the disease has run its full course. If not interfered with by any complication, and if the patient be comparatively young, it frequently ends by the supervention of coma, of which three varieties are described:—1. That described by Prout, and often accompanied if not produced by fatty degeneration of the heart, is rare and rapidly fatal. 2. The alcoholic form in which no characteristic lesion is found post-mortem is also rare, and may be recognised by the close resemblance between its symptoms and those of poisoning by alcohol; and 3. That form described often as "Kussmaul's coma," which is the most common, and which is characterised by "air hunger," brief period of excitement, coma, and the presence of one or more bodies in the urine which give a red colouration with ferric chloride, and which are readily decomposed with the production of acetone.

The prognosis in patients under 40 is almost invariably bad, above that age it is not necessarily so. The duration seldom exceeds three years, but cases have been known to last for 25 years.

As to treatment, dieting is all important. Dr. Pavy thoroughly recommends the use of opium, and in America arsenite of bromine has been recently warmly advocated.

With regard to the theories of causation, almost every worker has his own peculiar view. Dr. Pavy's views are of course known to everyone. Within the last year, Dr. Latham has advocated a chemical albumin degeneration theory, and Leegan a fat theory; that of Dr. Latham being especially fascinating. But the whole subject of the theory of the disease is far too complicated to attempt to enter into in this brief abstract.

Mr. Beard congratulated the reader of the paper on the very able way in which he had treated an extremely obscure subject. He related several interesting cases of diabetes which had resulted from injuries. He believed that salicylic acid gave with the copper test an action similar to glucose.

Mr. A. S. Taylor disapproved of the tendency to multiply theories, since these rarely resulted in any therapeutic gain. He could not agree with Mr. Campbell as to the very unsatisfactory results of treatment.

Mr. Routh described an interesting case of gangrene in a diabetic subject.

Mr. Lushington gave details of a case of diabetes at present in the hospital. This disease had developed after heavy pecuniary losses. The patient improved very rapidly under treatment, but complained bitterly of his limited diet.

Mr. Washbourn gave a further clinical account of the same case. Sugar has ceased to appear in the urine of this patient except after some dietary indiscretion, when it returns temporarily.

Dr. Larkin remarked on the great importance of examining the urine in all doubtful cases, and related several incidents illustrating the unfortunate consequences of neglecting this precaution.

Mr. Capes found that the specific gravity of the urine varied directly as the amount of urea present, and was fairly independent of the quantity of sugar.

Mr. KINGSFORD explained what he considered the peculiarities of senile diabetes.

Dr. GOODALL had been unable to obtain the characteristic glucose reactions with urine from patients taking salicylic acid.

Mr. BRADDON thought that homœopathy might assist us very materially in the treatment of diabetes. For instance, if we had a case of diabetes which had developed secondarily to an injury to one side of the head, we might attempt to cure our patient by inflicting a similar injury on the opposite side of the head.

Dr. WILKS considered that many cases were made worse by dieting, and that they did well if allowed to follow their natural cravings.

Mr. CAMPBELL having answered the several criticisms, a hearty vote of thanks to him was proposed and seconded, and carried unanimously by the meeting.

The following report of the Presidents was then read:—

The Presidents of the Physical Society consider that the best paper was that by Mr. Whitby, on "Hydrophobia," to which they award the first prize of £6.

They consider that Mr. G. Bellingham Smith's paper on "Tubercle" to be the second best, and they award it a prize of £4.

They consider that the papers of Messrs. Colclough and Campbell are worthy of special mention.

They regret that the papers sent in for the Treasurer's prize did not attain sufficient excellence to justify their awarding it.

They award to Mr. Norburn the prize for the best essay.

They invite the following gentlemen to perform the duties of president:—Messrs. Whitby, G. B. Smith, P. N. Randall, G. Black, H. J. Campbell and Norburn.

Votes of thanks to the Treasurer, Dr. Wilks, the Prizemen, Secretaries, and Presidents were proposed and carried unanimously.

NOTES FROM THE EAST.

As none of us are, or, at least, should be, so happy in our own conceit as to be above learning from our neighbours, even the humblest, it may be interesting to glance for a moment at those modernised antiques — the Fellaheen of Egypt, in order to see what they are capable of teaching us in the way of hygiene; and it must be granted that in many respects they are far enough behind us.

On coming in contact with these Eastern people, one is at once struck with their superior bearing and upright gait; and this is particularly remarkable among the women, who, from their earliest childhood, are accustomed to carry heavy weights upon the head. An Egyptian woman will thus carry with ease a water goolah weighing from 50 to 70 lbs.; and so steadily can they maintain the rigidity of the neck, that a dancing-girl will go through the most complicated evolutions with a lighted candle in a wine bottle balanced on her head without once dropping it. The male part of the community, however, is not subjected to such severe training, and the main cause of their upright carriage must, therefore, be sought in something common to both sexes, and this seems to be the style of dress they adopt. They do not wear any constricting clothing, all their garments being of light material and loosely hung, and such things as waist-bands and shoulder-straps or braces are not known among them. It is due to the same reason probably that the women are enabled to perform their destined function, that of reproduction, very much in the manner and with the facilities that nature intended. The stay-lace and other innovations of civilisation not having been introduced to the detrement of their bodies and disarrangement of their viscera.

The Egyptian Fellah never wears shoes or any other covering for his feet, which, in consequence, unlike those of his more advanced brethren, are *not* defirmities. The toes expand well, there being a considerable space between the first and its fellows. The arch of the foot is perfect, and there is plenty of spring in the tread: while corns, those bootless blessings, are unknown to him. It might be imagined by those who have not seen the human foot in its natural condition that it would become flattened and ill-shaped when not supported as they are accustomed to see it, but this is by no means the case, and the feet of some of the women are as elegantly small as one could wish to see them.

But the dusty agriculturist excels more perhaps in his teeth than any other feature, and his glistening rows of ivories never fail to inspire the foreigner with admiration and envy. The teeth are invariably well formed, very regular, and beautifully white, the free surface of the molars and bicuspids being ground almost to a dead level. These conditions must be partly hereditary, for the teeth of the ancients, who were burned more than five thousand years ago, as proved by the inscriptions in their tombs, are found to be equally massive and regular, though turned yellow by the chemical changes effected in the course of ages, and it is very rarely that a point of decay is discovered among them—and partly due to the food-stuffs in use, which are chiefly beans, rice, dovrah or Indian corn, sun-dried bread made from very coarse flour, sugar-cane, green vegetables (chiefly onions), milk, eggs, and occasionally meat, with unlimited supplies of Nile water, which is exceedingly rich in mineral matter. The beans, rice, dovrah and bread are eaten both in their dry condition and soaked in water or boiled; hot food is rarely taken and sweets are not indulged in, for it must be remembered that sugar-cane is remarkably wanting in absolute sweetness, while it requires considerable power of jaw for its mastication. Dates and oranges are the only fruits within reach, and they are luxuries which the Fellah cannot afford to enjoy. A native tobacco is smoked in the form of

cigarettes, but neither smoking nor coffee-drinking is carried on to anything like such an extent by these people as by the dwellers in towns. There is another point in which these natives have the advantage of us—they never burn the midnight oil and they generally see the sun rise.

It is obvious that the Egyptian lives under very different conditions, climatic and others, from those to which we are accustomed; but we certainly, in some respects, might bring our living more into accord with his, and were we to feed more naturally and dress more rationally, there can be no question but that we should gain greatly thereby.

Correspondence.

LUMBAGO.

To the Editor of GUY'S HOSPITAL GAZETTE.

SIR—Dr. Ryle's very excellent article on Lumbago in the GAZETTE has brought before our notice a fact, of which I, certainly, for one, was ignorant—viz., the lithœmic origin of lumbago; and since he seems rightly to have placed it among the "things not generally known," I feel I owe no apology for putting before your readers a case in point.

A friend of mine, who had been leading a very active life abroad for some months, on returning, had a sharp attack of lumbago while on board ship; this he put down to the effects of sea-sickness; but as it lasted for nearly three weeks after landing, he must have been somewhat at sea in his diagnosis. Having read Dr. Ryle's article, I questioned my friend as to the condition of his water, and found that he had been suffering from considerable urinary irritation, and had noticed that the urine he passed was scanty and high coloured, and on two or three occasions had become quite thick on standing. On examining a few samples, I found it to have a sp. gr. of 10·30, and to be intensely acid; and one specimen, that passed in the early morning, was loaded with lithates. Unfortunately—for us—before I had put him on a course of citrate of potash, the urine became much less acid, and the lumbar pains left him, so that I was unable to test the efficacy of ant-acid treatment. This case bears out Dr. Ryle's statement, that an attack of lumbago is common in "persons who change their mode of life, from active out-door to sedentary in-door, living without any corresponding change of diet."

Another friend, who has always been subject to attacks of oxaluria, tells me that he is very prone to back ache, but he has never, up to the present, seen any reason for directly connecting the two disorders, although he has noticed that he is always free from lumbago when taking plenty of exercise.

It may be of interest also, in connection with this subject, to point out, if I am not infringing too much upon your valuable space, that persons suffering from boils, and these occur in the over-fed as well as the under-fed, have almost invariably very acid urine, and that ant-acid treatment is of great assistance in bringing them back to a healthy condition. This practical tip too, is, I believe, among the "things not generally known," and I am indebted for it to one of my late examiners, Mr. Pollock, of St. George's.

I am, Sir, yours obediently,

E. C. KINGSFORD.

12, The Common, Upper Clapton,
May 9th, 1887.

A CASE OF HODGKIN'S DISEASE.

The patient was 32 years old, and had served as a soldier for two years in British Burmah, and two years in India. Had no illness with the exception of a week's confinement in hospital where he said he suffered from "liver complaint." He returned to England seven years ago, and has since been a grave digger, being exposed to the inclemencies of the weather. Has been rather an immoderate drinker. He was single, but there is no history of syphilis nor marks of chancre. Last November ('82) he contracted gonorrhœa and has since noticed the stream of urine gradually diminishing. His family history was generally good.

The illness for which he was admitted into Guy's commenced by swelling of the glands in the groin and neck, and afterwards in the axilla. Two months before admission he went to a medical man for pain over the shoulder-blades. A fortnight before admission he noticed a hard tender swelling at the junction of the epigastric with the left hypochondriac region. On admission this measured 3in. from above downwards and outwards, and 2½in. transversely, and was about 2½in. from the xiphoid cartilage. The front of his chest was covered by a number of "plaques," one of which, the size of a farthing at the inner end of the first left costal cartilage, was inflamed. He also had considerable tenderness over the chest and abdomen, especially over the situation of the liver. He complained of an aching in the swelling above described. His liver reached down to the umbilicus but his spleen was normal, and the blood contained no excess of leucocytes. Deglutition was rendered painful at first by the projection forwards of the back of the pharynx, but became easier afterwards. During the progress of the case there was paresis of the right side of the soft palate; but this subsequently got better as well as the difficult deglutition, the back of the pharynx receding. Mastication was attended with pain shooting up from the right temporo-maxillary articulation to the right temporal region. He also complained of neuralgic pains over the right side of his head and face. Nearly all the lymphatic glands where enlargement can be felt from the exterior were swollen except the popliteal. A short time after admission the patient was found to be deaf in the right ear, and subsequently the left ear became impaired in appreciation of sounds. Ptosis of the right eye was also developed. There was also diplopia especially after fatigue. Dr. Brailey saw him and diagnosed paralysis of the right third nerve. An ulcer on the inner side of the left cornea was noticed. The patient used to complain of pain over scapulae and back of thorax generally There was dulness at the bases of both lungs and over the sternum, where the breathing was heard to be bronchial. At one time a pleuritic rub was noticed, but this was only temporary.

Inspection.—Brain: weight, 55ozs.; no tumour was observed to press on the right third nerve, but the right side of the ethmoid bone was suppurating, though apparently not into the orbit.

Chest, &c.: from two to three pints of fluid were removed from the pleural cavities; the bases of both lungs were consolidated, sinking in water. Their upper parts were œdematous and at the left apex was an old pleuritic membrane. The bronchial and posterior mediastinal glands were not enlarged. The heart was small (8½ozs.). The ventricles were found to have hard fibrous growths extending through their whole thickness, and on the outer surface of the right ventricle was a lymphoid patch, extending slightly into the muscular substance, and covered by a thin layer of subpericardial fat.

Liver (88½ozs.): This was considerably enlarged, and occupying some of the right lobe, and a large part of the left was a huge white-looking lymphoid growth, extending from surface to surface of the organ. A scraping of it shewed little but leucocytes under the microscope. The rest of the liver looked perfectly healthy. The glands in the portal fissure were enlarged, and one lymphomatous mass embraced the cystic duct, which, however, was quite patent, the gall-bladder itself containing but little bile.

The Spleen (6¼ oz.) was apparently healthy, with exception of a little capsulitis, due perhaps to old syphilis, and a small lymphoid mass about its centre.

The Kidneys (17¼ oz.) contained numerous large masses of lymphomatous material, the true renal gland tissue being almost obliterated in one. The supra-renals were normal. The mesenteric glands were all swollen and much pigmented.

The case lasted from the 13th June to 26th August, 1883.

Note.—Injection of arsenic had been tried into one of the glands. It seemed to get softer, but after death it was found to be in a condition of suppuration.

A. W. WEBB.

Pathological Notes.

Inveterate Eczema of Nipple and Areola—Duct-Cancer of the Breast.

F., 53. Previous history very good. No trouble with the Breast till 18 months ago, when the nipple became sore. It was treated with ointment, which caused it to heal for a time, but soon it broke out again. There was very little pain; but three months later a tumour was discovered in the Breast; and this has continued to enlarge ever since.

On Admission.—There is patch of Eczema occupying the position of the Areola, and the nipple is almost destroyed, so that its stump is on a level with the sore patch. Beneath this is a hard nodular mass adherent to the deeper structures. Enlarged glands in the Axilla.

Naked Eye Examination.—After removal of the Breast a growth was found in the centre of the gland, adherent to the Pectoral muscle, and involving some of the galactophores. It had the appearances of a typical Scirrhus of the Breast. A vertical section through the Areola and remains of the nipple showed that there was some retraction of the latter; and milk ducts could be readily traced downwards to the tumour. The glands contained small secondary deposits.

Microscopic Examination.—The portion examined included part of the stump of the nipple and the adjoining Areola.

The surface of the stump of the nipple is almost entirely denuded of cutis, leaving a smooth layer of subcutaneous tissue; the papillary portion of the corium having been destoyed by ulceration. In one or two spots where the cutis remained there is proliferation of the cells of the rete mucosum, and the corium and subcutaneous tissue are infiltrated with inflammatory cells. These changes are still better marked in the section of the Areola, for here the papillary portion of the corium is intact; and they are similar to the alterations described in chronic eczema of other parts.

The nipple shows numerous sections of the galactophorous ducts, and still deeper many acini are seen. Some of the ducts are dilated and empty, and appear normal; but others are filled with large granular spheroidal epithelium, "so that they look like the sections of tubes in Tubal Nephritis" (Butlin). The affected acini are distended with similar epithelium, the central cells of which have degenerated, in a few instances forming dense granular masses. Around a group of such acini the connective tissue is infiltrated with small round cells. Separating these from the epithelium within is the membrana propria of the acinus, which in some places is exceedingly distinct—an important fact to which Dr. Goodhart has drawn attention—while in others the acini seem to have run together, and as such cannot be distinguished from the alveoli of a fully developed Carcinoma.

This account agrees very closely with the description given by Mr. Butlin of Carcinoma following Eczema of the Nipple, and we cannot do better than quote his synopsis of the pathological process:—

1. "One of the first effects of the Eczema is to produce proliferation of the rete mucosum of the affected parts.

2. "In time the epithelium lining the galactophorous ducts becomes affected in like manner.

3. "The disease travelling along the large ducts reaches the smaller ducts and acini, which become dilated and filled with proliferating epithelium, which is at length, so to speak, discharged into the surrounding tissues.

4. "The carcinoma thus formed is therefore essentially a disease of Epithelium."

Passim.

The medical papers being more destitute of interest than usual we have to cast our crystalline upon, and dip the instrument which lends a name to the point of diverging Restiforms (at the lower border of the fourth Ventricle) in, sources of cogitation nearer home. How those queer fanciful names which the old anatomists used to give the structures over which they pored, make one stop for a moment to reflect on the romance called up by the *calamus scriptorius*, the *locus niger*, the *iter a tertio*, and a host of other oddities. Imagine a matronly white corpuscle hanging over the giddy abyss of the calamus in one of those delicate little fringes of pia that dip over the sides; watching—who doubts but some apperception of an *ego* is found in every movey mass of life?—the swirl of the cerebro-spinal fluid as it gets sucked into the long central canal—or sucked out, which is it?—of the spinal cord; explaining to a little leucocyte about to be sent off on travels of its own. "Ah! my dear, a neighbour went down there once but he never came back again; they say it goes on for ever that tunnel, and it was quite hopeless to send after him; however, the Government did send a search-party, but the Spinal segments were amazed, so many strangers coming where there was no right of way; there was a dreadful irritation. The Cord threatened to turn into Syringomyelus, which would have been dreadful, as they have very great influence over the Muscles and other things, and the empire would have gone to pieces. However, it all blew over as they got out and got lost in Spina Bifida instead. That was about the time of a disturbance in No. 71 X. They called it the red nucleus ever since. Such a fight there was. A lot of Red Cow-puzzles had got loose, and the Phagocytes were ordered out, and——" but just here the old leucocyte herself got excited and tumbled over and was sucked into the *Calamus scriptorius*. It is very lucky that we do not know all that goes on inside us. But indifference to personal interests is exemplified elsewhere:—

The Cricket Cup.—What about that? Those who seem to care least about the matter are the Cricket Committee. The last thing was a request from the U.H.C.C. to Guy's to hand it over. It will be remembered that we were voted to have won it illegally; but the vote by which this was decided was itself irregular; and at the next meeting it was refused to re-open the discussion. Our opponents are in the wrong, of that we are certain; but they refused our offer to arbitrate before, so it is not likely they will listen to reason or act openly and fairly now. The only resource is—to keep the Cup—which they must obtain, if they can, since they have refused to refer to any tribunal of Sport—by legal proceedings; and we must, as *Cavendish* says somewhere, refuse to play with such men. That is the only conclusion, to our mind. What do the Cricket Committee think of it?

Messrs. Alport, Fawcett, E. J. Mitchell, Washbourn, Burghard, and R. M. Randell, have been chosen to serve on the Committee of the New Club, with Six Members of the Staff. The Committee is representative; we hope it it will be active also. It would be absurd to suppose that even the most popular among our teachers should exactly know our wants, or hold the same views perhaps as ourselves of things desirable, or things necessary in a Club. These it will be the duty of our part of the Committee to bring forward and insist upon as strenuously as may be.

As regards catering, this is especially the case. In the Dining Club no one could maintain that Messrs. Roberts, or their successors, either did, or were likely to do the thing properly. We will not say we were sent the leavings of the Bridge House Tables, but we certainly did not get the best of comestibles. It is obvious that a large concern is not the one to take the most trouble in providing the wants of a small Club. The Catering should be handed over to some one who has not too large a business of the sort; expects not too large a profit; and is identified to the prosperity of the Students for his own. These requirements are, we think, found fulfilled in Mr. Millson. To our mind he is just the man to provide well, and superintend efficiently the whole of the eatable and potable department.

Then as to Amusements. Billiards, possibly harmless as it is, may be too expensive to begin with. But we should think nothing of a Club in which WHIST might not be played during moments of leisure. It is unlikely that the Senior half of the Committee will favour either of these motions. Not because they may be injurious, but because Seniors never see the benefit, or feel the attractions of them. Nothing cultivates analysis, memory, and observation, and decision (we have said this in PASSIM before) like Whist. Hence we hope the Committee will strongly uphold this recreation. Lastly, it is obvious that the club will be of great utility if it can be kept open late on Physical Nights, both for dinner and other purposes. Indeed we should be glad if it were possible always to dine there at least till half-past seven. As dinner at mid-day ruins work in the afternoon, so dinner after Hospital work is finished becomes more than a desideratum. There is a great tendency among us at Guy's to let a Name reap all the glory of the *Thing* which it stands for, but only too often does not comprise the benefits of. How long is it since the Ambitious "Physical" Society ranged outside a narrow sphere of Medical Text-babble? Let the Committee see to it that the Club do not become similarly a mere name for advertisement, instead of an Institution providing for our wants and recreations.

AT a meeting of a Committee of the Governors, held on Wednesday, the 11th, the following were appointed Assistant Physicians to the Hospital:—Dr. G. N. Pitt, Dr. L. C. Wooldridge, and Dr. E. C. Perry.

Dr. PITT is M.A., M.D., Cambridge, and M.R.C.P., London. At Cambridge, he took his B.A. in Mathematics, obtaining a high position among the Wranglers, and was elected to a Fellowship of Clare College. He received his medical education at Cambridge and Guy's Hospital. At the latter place he held all the senior appointments, including that of House Physician. Dr. Pitt was also Assistant Lecturer on Zoology, Medical Registrar, and Demonstrator of Pathology here. For some time past he has been doing Assistant-Physician's work, in the wards and at out-patients'. He is the author of several papers on Pathological subjects in the Guy's Hospital Reports and the Proceedings of various societies.

Dr. WOOLDRIDGE was educated at Guy's Hospital, and took numerous prizes during his career here. He is M.D., D.Sc., Lond., and M.R.C.P. Among other honours at London he obtained the Gold Medal in Medicine at the M.B. When he left the hospital, he received the appointment of George Henry Lewes Student, and in this capacity spent some years in the Universities of Leipzig and Berlin, engaged in Pathological and Physiological research under Professors Ludwig and Virchow. For the last three years he has been Demonstrator of Histology here. During the same period Dr. Wooldridge has also held one of the Research Scholarships of the Grocers' Company, and has been commissioned by the Local Government Board to pursue investigations on the nature and prevention of infectious diseases. In 1886 he delivered the Croonian Lecture before the Royal Society. He is also Examiner in Physiology in the Royal College of Physicians and Arris and Gale Lecturer. He is the author of numerous papers on the nerves of the mammal's heart, on the constitution of blood and the processes of coagulation, and on the mode of action of pathogenic organisms.

Dr. E. C. PERRY is M.B., M.A., Cambridge. He was captain of the school at Eton. He then went up to King's College, Camb., where he obtained the Bell Scholarship, the Brown Scholarship, the Pitt University Scholarship, and graduated as Senior in the Classical Tripos in 1880. He was then elected to a Fellowship of his College, and spent ten months in Germany, during which time he studied Philosophy at Leipzig. He then entered on the study of Medicine at Cambridge and London Hospital. He has held the posts of Assistant Demonstrator of Anatomy at Cambridge, and House Surgeon and House Physician at London Hospital.

PRESENTATION DAY AT LONDON UNIVERSITY.

On Wednesday afternoon last, Lord Granville (Chancellor), assisted by Sir James Paget (Vice-Chancellor), Sir John Lubbock, Dr. Woods, Lord Sherbrooke, Professor Huxley, and other gentlemen eminent in the cause of education, distributed the degrees, medals, &c., to the graduates and scholars of the past year. Guy's was as usual in force, contributing a substantial share of the M.B.s. Among the recipients of honours Washbourne undoubtedly had the lion's share. His reception from all parts of the theatre was immense. Of our performance at London, as of most things, we ought to be proud—and we are.

This part of the entertainment over, Earl Granville rose amid huge applause, and with his calm eloquence convinced all present of the superiority of London University in every respect over all other universities which exist, ever did, or ever will exist. He then discussed the objection which has been raised against our University on the score of its being merely an examining body. He (Lord Granville) fully appreciated the advantages to be gained from a nearer and better relation between teachers and examiners, and informed us that the Senate and Convocation had at present a scheme

for reinstating the government of the University upon a somewhat different and less autocratic basis. We certainly wish this scheme better success than the late one of Lord Justice Fry. Lord Granville then heartily congratulated all the new graduates, and wished them every success for the future, and resumed his seat amidst continued cheers.

Sir John Lubbock was the next speaker, and, commencing with a few flattering remarks to his future constituents, dived, as usual, into politics. He explained in a somewhat lengthy manner his importance as a politician in general, and on the Home Rule question in particular. His oration was continually interrupted by cries from dissenting constituents—"No, no!" "Order!" "No politics!" being somewhat common, and emanating more particularly from an irascible individual with russet hood, and purple face, and stentorian voice which belied his origin from the emerald isle.

On his retirement, Earl Granville in a delicate manner expressed his opinion that, in a purely academical gathering, when we ought to meet under the most amicable of circumstances, it was somewhat unnecessary to introduce the most burning question of the day. The assembly then broke up, men calling for a few words from Lord Sherbrooke and Huxley.

The usual stasis followed, some men making for the robing-room to rid themselves of those peculiarly uncomfortable and complicated garments known as academical costume; other strutting about the entrance hall in their newly-acquired plumes, until there was nobody left to admire them, when I suppose they also retired to the disrobing-room, paid their 7s. 6d., and once more emerged as ordinary mortals.

Green Extracts.

In the *Journ. of Phys. for April*, E. Lloyd Jones gives the results of a large number of experiments upon the specific gravity of the blood. For apparatus he used fine glass pipettes with points bent at a right angle to the main tube. A drop of blood having been drawn up into one of the pipettes, is conveyed to a standard solution, into which it is made to enter in a horizontal direction. Of the standard solutions, consisting of glycerine and water, about thirty are kept, each differing from the one above it by about one degree of the specific gravity scale, The sp. gr. of the blood is readily determined by noting the sp. gr. of the solution in which it neither rises nor sinks.

As the result of his experiments he has come to the following conclusions:—

Age.—The sp. gr. is highest at birth, being 1066; at a minimum between the second week and second year; rising to a maximum attained in the male between 35 and 45; in the female after the climacteric. In the male this maximum averages 1058·5, in the female 1054·5. The sp. gr. tends to be higher in the male than in the female. *Pregnancy* diminishes the sp. gr. slightly. *Ingestion of food, solid or liquid*, diminishes sp. gr., this fall not being observed if alcohol be taken. *Exercise* causes, if gentle, a fall; if more violent, causing marked perspiration, a rise. *The conditions of the circulation* modify the sp. gr.—for instance, the sp. gr. is high in a passively congested part. *A diurnal variation* exists, the sp. gr. falling during the day, and rising during the night.

The same number also contains the results of six year's work on the effects produced by the division of the cervical sympathetic trunk, by Dr. Pye-Smith. He has found that in the case of rabbits and cats the well known effects of division upon the diameter of the iris on the size of the blood vessels and on the temperature of the ear, continue without change, or indication of approaching change, for periods varying from ten weeks to three years. In no case was there observed the least tendency to return to the normal condition, and in none was the abnormal state replaced by that of anœmia and lowered temperature. The permanent dilatation of the arteries, never at any time showing the slow rhythmical pulsations seen in the healthy ear, would, in Dr. Pye-Smith's opinion, militate against the theory of the existence of distal ganglionic centres in the ear. He considers the phenomena perfectly explicable on the hypothesis of circular contractile muscular fibres and vaso-motor nervous fibres, and, moreover, doubts the existence of vaso dilator fibres in the auricle, the dilatation of the arteries being sufficiently explained as the effects of elasticity.

PREDISPOSITION.

Among those curious bundles of facts, fictions, shades, traditions, substances, and guesses, labelled in the text-books *Ætiology*, a vague figure frequently presents itself, obscurely luminous, called Predisposition. Gathered up partly from observation, largely from tradition, the assigned causes of human ailments stand like an army in a wood, whose real numbers are concealed and powers are magnified, both from the vagueness of their haunts, and the attacking advantages they ought to derive from such a strategical position. A ghostly array truly these powers of Earth and Air. More ethereal and shadowy, but not less antique, spectres of evaporated Theories keep them company,—skeletons of constructive guesses at Disease, bringing with them a smell of the Alchemist, a suggestiveness of the Gold-headed Cane. Looking through paragraphs of *Causation*, these departed worthies still smile familiarly from the page, almost aggressively familiarly; yet, with a complacent gravity, as knowing their own suggestive and elusive functions. Why do our Authors keep these old misleading phrases in their descriptions? Do they ever think what rays of meaning stretch out on every side from a word that has none, or but a vague one? A shapeless word must reflect some idea, indefinite though that be. Accordingly the limp reflection will settle itself into the roomiest corner of the recipient's brain, and shape itself ninety ways in ninety brains out of a hundred. To how many diseases do "cold" and "damp," "fatigue," "heredity," and such

like, not give rise, half of them of exactly antagonistic nature to the other half? A pendulum may strike as well at one end as at the other of its swing, so we will not complain of heat and cold. But what about 'struma' and 'scrofula,' 'rheumatic' and 'gouty' 'tendencies,' 'arthritic diatheses,' 'neurotic inclinations'? What are all these but resuscitated obscurities, sepia-clouds in the waters, spectres of gold-headed canes? Above all, what, oh! what exalted diffusers of Sepia-Medicine, what is a PREDISPOSITION? We spare your feelings, asking you not to define a Cause. But what is a Predisposition? The Humours have fled away long ago to their Fool's Paradise; the mighty adjective, Constitutional, was solemnly hanged not by the neck, but by the toe, by Dr. Moxon, at a certain eminent discussion on Cancer and Carcinosis. Who then will define this most respectable indefinableness for us?

"*Predisposition.*—Previous mental inclination or propensity to anything; previous fitness or adaptation to any change, impression, or purpose."

"*A predisposing cause*, in Medicine, is any circumstance which renders the body susceptible of disease,"—*A new Universal Dictionary, &c., by* JOHN CRAIG, F.G.S.

Now, suppose a healthy adult walking down the most boulevard-looking part of King Street. He affords a striking instance, nay, a crowd of striking instances, in his own person of predisposition to Disease.

1. His erect attitude—adapts him to fall his own height.
   - (1) Fractured Skull.
     - *a* Supra Dural Hæmatoma.
       - *á* Pachymeningitis.
         - (*a*) Epilepsy.
2. His open mouth—adapts him
   - (i) To swallow a Koch's bacillus. General Tuberculosis, Phthisis, &c.
   - *or* (ii) A Friedländer's Micrococcus. Pneumonia, &c.
3. His walking beneath the tiles—adapts him
   - (*a*) To receive a falling tile on the head.
   - (*á*) To be knocked down in consequence—very striking.
4. On the other hand—
   - (1) If the tiles on the roof fall on his head, these are circumstances which render his body susceptible to disease, viz.—Fractured Skull, Epilepsy.
   - (2) If one of Mrs. Newcomen's little boys implant a spike-top (during the season for that pastime) through his toe, this will render him susceptible of Tetanus, Erysipelas, or any other aggressive microbe-invasion.

Hence we see that *Predisposition* is not a blemish after all, and does not really mean any vice in the system. It is true that every one who walks the street is liable to Tetanus and Epilepsy; and that Tiles and Peg-tops are really predisposing Causes to these diseases. But this is not all. Not only is every Adult in the neighbourhood of a tile predisposed to Epilepsy, but every Epileptic is (we have it on Authority) predisposed to fall without a tile. That is, Epilepsy is both a disease and a predisposing cause to itself; so that it is better to be an Established Epileptic than expose one's self to the risk of being a healthy adult, by so much as a predisposition to, is less dreadful than the actual disorder; lest, in estimating the true meaning of Predisposition, and Predisposing Causes, we should seem to be too dogmatic when we assert that the term relates less to Pathology than Health, we may quote Dr. Bristowe, *Theory and Practice of Medicine* (p. 8). He says—

"The subject of predisposing causes . . . is of surpassing interest . . . .;" he will content himself "*with enumerating and considering briefly some of the more important and more generally recognised amongst them.*" Here follow 6 pp. of lucubration, in which the following factors are picked out as the most obviously predisposing causes, which he has defined (p. 7) as "those conditions which so modify the health of the patient as to render him apt, or predispose him, to contract the disease, to the specific influence of which he happens to be exposed." They are:—1. Age. 2. Sex. 3. Personal Peculiarities (!). 4. Habits of Life. 5. Effects of Previous Disease. 6. Influence of heat, cold, dryness, moisture, and atmospheric impurity.

Everyone is familiar with this Author's magnificent explanation of 'Fever,' "that ABSTRACT CONDITION (!) which is common to all *so-called* febrile disorders, and the presence of which gives them their claim to that designation."

Like Pearson's definition of 'Creed," this definition holds its mouth in its tail so ably as to suit everyone. But we think this discussion of Aetiology runs it close. On going calmly over the predisposing causes we are inclined to add to them Magnetism, Electricity and Gravitation; when we attain the brilliant result which it has been the aim of this paper to endeavour to unfold. That every human condition is a predisposing cause to whatever disease to which a human being is exposed, and predisposing causes have no distinguishable existence.

"What is all this but bosh, nothing" said the Pacha (of many Tales), "doth the Slave laugh at our beards." Why do our writers plunge so wildly into definitions? It is well that Science is written on the Titles of the Text Books. There appears to be room only for Theory within, and *Predisposition* and other expressions, old, vague, and ignorant, masquerade through treatises, like fools at Court.

L. EPISPASTICUS.

HOSPITAL APPOINTMENTS.

House Physicians—J. WASHBOURNE, A. E. PRICE, R. M. H. RANDELL.

House Surgeons— F. BURGHARD, S. R. ALEXANDER, E. W. DU BUISSON.

Obstetric Assistants—F. H. KNAGGS, W. F. CLARKE.

A NEW FUNCTION OF THE HEART-BEAT.

(From C. LUDWIG'S "Festgabe," 1887.)

Professor E. Fleischl v. Marxon, of Vienna, has discovered that if a liquid containing a gas in solution be subjected to a slight impulse and a negative pressure at nearly the same time as possible, the molecular relations of the gas and liquid are distinctly changed. His experiments seem easy to imitate. He takes a good hypodermic syringe, keeps it upright under water, and fills 4-5ths of it. He then closes the mouth with the finger and draws out the piston to its full extent. Bubbles are now perceived in the liquid. These diminish in size on returning the piston, and may be collected into one, and its size estimated in any way, *e.g.*, by passing it into another vessel under mercury that has been freshly heated and so freed from any air. He now repeats experiment with this difference. A little less than 4-5ths of the syringe is filled with water as before, the mouth closed, and the piston drawn out to the 4-5th's mark. The finger being taken away, water rushes in, and gives a slight impulse to the fluid already in the syringe. The mouth is then stopped and the piston drawn out at once to its full extent. The liquid now becomes full of bubbles and regularly frothy. As before, one large bubble may be obtained from 15 to 135 times as large. A modification of his experiment is to give a slight impulse to the water while actually under a negative pressure. This is done by holding the syringe mouth upwards while some 3-5ths full of water, and the piston drawn out, and giving a slight tap to the end of the piston rod. The difference in the quantity of bubbles before and after this is clearly noticeable.

Professor Fleischl's conclusions are that if a liquid containing gas in solution be subjected to an impulse, it loses the character of a genuine solution. The union of the gas and water molecules is destroyed and the gas molecules lie free between the fluid molecules. Now, it is well known that a certain amount of gas is contained in the blood-plasma. Almost all, in fact, of the carbonic acid of the blood is thus contained in some form or other; and Professor Fluschl thinks that it is an important function of the heart-beat to prepare the venous blood for respiration. Thus by analogy with the experiment with a syringe, the systole of the right ventricle gives an impulse to the blood in it, and thus frees the gas in solution in the plasma. These molecules are thus transformed into a condition much better suited for diffusion, though it is not at all necessary to assume, or even to think, that any frothing of the blood goes on in the lungs.

F. H. B.

MEN WE MEET.

Has it ever occurred to you how readily you may classify most of the men you run against in this hospital of ours?

There is the Reading Man—whom you may at all times find in the library, working so conscientiously, but, oh! how lamentably. The ideas he has gathered haphazard from his numerous authors, jostle each other so unmercifully, and become so tightly packed, that nothing short of trephining, I fancy, will get one of them out. Truly, reading, in his case, has made a full man.

Then there is the Earnest Man—who greatly, and with the utmost regularity, frequents the wards and the out-patients' departments; but as he never reads, his ideas are as some undressed salad—good, but needing further elaboration.

There is, too, of course, the Lucky Man—the insensitive man, the pushing man, or whatever else you may please to call him. You will recognise him. He is one who impresses his worldly pastors and masters wondrously; those who know him hold aloof and marvel; and if they be thoughtful, seek therefrom to draw a lesson; if they be wise (as the world counts wisdom), they will reassure themselves by some such comforting but ignoble thought as this, "I, too, want to get on; if so, I must firstly assure myself that I am a very clever fellow, and secondly convince others of the fact. If I wish to be considered a man of learning—whether I know anything or not is of small importance—I will myself believe in myself, and then pass the belief on to those with whom I come in contact. But how about truth, self-respect, and—well, no matter; I must, get on." And his dear old standard of "self-reverence, self-respect, self-control," is pushed aside as a poet's dream; but not without a pang does his childish ideal vanish. In a more advanced stage he forms a distinct class. Surely you know the man who elbows you from the side of your chief, and in your place insinuates himself together with some miserable platitude, as some theft-detected puss flattens herself beneath the dusty gate; reiterating with ceaseless patter questions, the answers to which he knows full well. No young and eager lover seeks the side of his mistress with more ardour than does he his master's side. He is the man with a motive—the man desirous of attracting attention by the loudness of his conversation and the freedom of his manners, being ignorant of the softer graces of manliness and youth—youth in fairness and equity to others.

Then you must not omit the man who knows "out-of-the-way things." He can tell you the morphology of a certain tubercle on a vertebra, and trace it from Amphioxus, through Leviathan, to the Armadillo; and recount to you German theories *ad infinitum* (by the way, all his theories are German, an English hypothesis is nothing thought of by him) as to the origin, life history, and reproduction of the "Bacillus High-Street-Boroughensis," but is withal somewhat nonplussed when asked the deformity occurring in a Colles' fracture, or the physical signs of pleuritic effusion.

I had almost bored you with another, and yet another, class; but after a time classification becomes painful. Of the man who bedecks and bedizens himself in soft raiment and fine linen; of the man attracted to the wards by the gad-fly light of the opposite sex; of the confirmed collonade lounger—I have nothing to say. They have their work; I mine.

Surely there is one other class. True, but—"*de bonis nil nisi bonum.*"

FARRAGO.

CARD OF THE EXTERN.

BY OUR MAZE POND POET.

Air — "Star of the Evening."

Card of the Extern, Rich with Grease,
Whispering of the World's increase!
Who, to gain thee, does not work hard,
Card of the Extern, beautiful Card.
Ce-ard of the Extern,
Be-autiful Card!

One night, as the clocks were striking three,
I came back tired, as tired could be—
Pulled up the string of my warning bell,
Hung forth my board, saying, OUT as well.
Having done which, I felt debarred,
Somehow, from taking another Card,
Another Card! . . . . . .
For less than a minute I sweetly slept,
Then heard—the hurry of feet that stepped
With well-known shuffle, along the Court,
Until they stopped at my Number short:
They looked at my notice, and laughed!—and hard
They banged at the door—Another Card!
Another Card! . . . . . .
In vain did I strive dear sleep to wed,
At last to the window I went and said,—
"What are you making that noise about?
"Can't you see that the Doctor's out?"
A sunk-nosed lady screeched out, "Yes, Old Pard,
"We're going to stay till you take this Card!
"Till you take this Card!" . . . .
"Despair!" I said, "Have you tried next door,
"And Dean Street 6, and Twenty-four,
"Maze Pond, and New Street?" The Nose replied,
"We have been round to them all and tried,
"And you'd better come quick, she's mighty bad,
"Young man—no gammon!" I took the Card.

Oh! might it be at Gimber's Rents,
Snow's Fields, or nearer Tenements!
My Virtue, I felt, deserved reward;
It was—at the end of the long Tabard,—
All the way down the Sweet Tabard,
Card of the Extern, beautiful Card!

Sport.

GUY'S v. REIGATE HILL.

This, the opening match of the season, was played at Reigate on Saturday, 7th inst. In spite of the recent heavy rains the ground was in fairly good condition. Our opponents won the toss and elected to bat, sending in Collier and Welch to the bowling of Bolus and W. G. Mitchell. With the score at 15, Collier was bowled by Bolus; shortly after, Welch was dismissed by a splendid catch in the deep field by Hicks. Cotton now followed, but was soon sent back. Pawle then came in, and played capital cricket for 23, when he was "yorked" by Mitchell. No one else did much except Millard and Pelly, who contributed 22 and 14 respectively; the innings closing for 106. Bolus took 7 wickets for 34 runs.

After lunch we started our innings with Scott and Bolus, who, however, failed to score. The two Mitchells were soon out, and Fripp joined Roberts, when a capital stand was made, 65 runs being added during their partnership. Roberts was then dismissed by a good catch, after having contributed an excellent 47. Featherstone followed, and runs came freely. Fripp's innings was now brought to a close, his well hit 52 being most useful. The next three batsmen were all clean bowled by Welch. Featherstone was then sent back for 20, our innings closing for 134, thus heading our opponents by 28 runs.

Reigate in their second attempt scored 135 for the loss of 4 wickets, the chief feature of which was Welch's 66. In this innings plenty of opportunity was afforded to the new blood of displaying their bowling powers. At present we cannot report anything phenomenal in this line; we must remember, however, that this was the first day's cricket for many of the team.

Score:—

REIGATE HILL.			
J. Collier, b Bolus	10	W. H. Pelley, b Bolus	14
T. H. G. Welch, c Hicks, b Bolus	5	A. E. Millard, c Hicks, b Mitchell	22
Rev. E. Cotton, c Mitchell, b Bolus	1	H. Collier, not out	2
W. G. Heasman, c Featherstone, b Bolus	14	W. Cazenove, c Bolus, b Fripp	0
E. D. Pawle, b Mitchell	23	Byes 6, l-b 1, w 2, n b 3	12
J. T. Nickisson, b Bolus	3	Total	106
F. Abraham, b Bolus	0		

REIGATE HILL (second innings).—J. Collier, c and b Fripp, 6; Welch, b Bolus, 66; Cotton, c sub., b Webber, 45: W. G. Heasman (not out), 10; H. Collier, c Scott, b Mitchell, 6; byes, 2; wide, 1; total, 135 (for four wickets.)

GUY'S HOSPITAL.			
W. J. Scott, b Cotton	0	G. Featherstone, c H., b J. Collier	20
H. B. Bolus, b Heasman	0	T. S. Jackson, b Welch	0
H. J. Roberts, c Welch, b Heasman	47	R. G. Hicks, b Welch	0
E. J. Mitchell, b Heasman	2	E. Budge, not out	5
W. G. Mitchell, b Heasman	1	Byes 4, l-b 1, w 2	7
A. D. Fripp, c Pawle, b Welch	52	Total	134
H. Webber, b Welch	0		

GUY'S v. SURREY COLTS.

Played at Kennington Oval on May 11th. Guy's won the toss, and scored 137. Fripp played a splendid innings of 60, and W. G. Mitchell hit hard for 20. Rain stopped play until late in the afternoon. The Colts opened with Brockwell and Henderson, and at the drawing of stumps had scored 78 for the loss of 2 wickets. Henderson showed good cricket for his 40; unfortunately he was missed from the first ball he received. Score:—

GUY'S.		SURREY COLTS.	
W. J. Scott, b Gray	13	Brockwell, c Featherstone, b Cruickshank	17
A. D. Fripp b Gray	60	Henderson, not out	40
J. H. Roberts, c Gray, b Solmon	9	W. G. Stover, c Scott, b Rygate	9
B. Hilder, c W. W. Read, b Henderson	5	King, b Bolus	0
E. J. D. Mitchell, b Brockwell	3	Hill, not out	0
H. B. Bolus, b Brockwell	6	Extras	12
W. G. Mitchell, b Brockwell	20		
J. D. Cruickshank, b Brockwell	5		
C. D. H. Rygate, run out	0		
G. Featherstone, not out	0		
F. M. Russell, b Brockwell	0		
Extras	16		
Total	137	Total	78

Guy's Hospital Gazette,

MAY 28, 1887.

THE COLLEGES AND THE HALL.

WHAT are our Colleges about? The question belongs, we fear, to a category of interrogations, which it is asserted that a wise man cannot answer, though readily propounded by a class of persons not so conspicuous for moral turpitude as distinguished by mental deficiency.

Relying upon their longer purses, finer quarters, and an ill-deserved popularity, the Colleges in Lincoln's Inn Fields, and Pall Mall, have fused themselves together, to cement their power for Evil.

For whose benefit the present muddling arrangement is supposed to be invented it would be difficult to say. Whom it does *not* benefit it is easy enough to point out. But the Students —upon the fees of generations of whom these Corporations have waxed fat; the superintendence and furtherance of whose education is their chief present, if not sole original *raison d'être*— are naturally enough not consulted in these matters. If they have four or five Examinations to pass to gain a qualification less respectable than they might formerly obtain for three, is it not a proof of that paternal affection which also chasteneth? If they are to be Licentiates of a College of Surgeons whereof they might formerly have been Members, is not humility a virtue? Moreover Pall Mall sounds better than Blackfriars; and the owners of a quarter of a million must ally themselves, if anywhere, aristocratically.

However there is a third competitor, and luckily a strong one, for the favours of the young HIPPOCRATES.

At a time when the unforeseeing, and exclusive COLLEGE OF PHYSICIANS refused to institute a Licentiateship as a qualification for the rapidly increasing members of the Profession, the SOCIETY OF APOTHECARIES, impelled by nothing more than a desire to aid the progress of a Science and an Art, not essentially their own, obtained powers to provide with a Medical Diploma, those many men who could neither afford the fees nor the leisure requisite to gain that of the Physicians.

The L.R.C.P. is a later, and a rival license, designed not from any desire of that College to supply our wants, but by the meaner motive of ignoble competition. Not only did the Apothecaries' Society perform voluntarily this service for us; it was the first body to endeavour, by making compulsory a preliminary Examination in Arts, to raise our standard of general culture and education; and with a generosity unapproached by any Medical Corporation in London, it has instituted prizes, and scholarships which tend to the same object, by giving reward to merit, and general impetus to study. Can the Colleges of Pall Mall and Lincoln's Inn Fields shew anything they have spent upon us, to rank with the Princely Surgical and Medical Scholarships, of £100, and £80, each for three years respectively, which till lately have been offered triennially for open competition by the Apothecaries' Hall? Can those Colleges indeed shew anything at all comparable with this, or any particular service that entitles them so much to the gratitude of the Students, and the Profession?

However they have combined, in jealous conspiracy, against an Institution, reminding them perhaps too patently, of their not too exalted ancestry. One, too, that has been doing good and thorough, if unostentatious, work for the Profession, while they have been frittering away money, and leisure, and better abilities on the luxury of pickle pots, and compiling flatulent compendia of medical terminology.

We have heard it said that the Final L.S.A. is easier to pass, and more loosely-conducted, than the Conjoint Board's Examinations. We can testify, however, that it covers much wider ground, and is as efficient and searching as either. It is true men are not penned up there unnecessarily like cattle, as they are at Lincoln's Inn Fields; and that it is not perhaps held all-important to be acquainted with the peculiarities of an Examiner, or the exact uses and names of superfluous inventions. But they give a man a chance of shewing what he *does* know, not seeking specially to discover what he does *not*.

Their fees are not exorbitant; and, *mirabile dictu*, their very officers are civil! Moreover they reduce as far as possible to convenience, the nonsensical nuisance of time-limitations. Why men should be *compelled* to spend a given period of time, on this, that or another study; why they should be *compelled* to attend Lectures, is one of those things which pass man's understanding, unless indeed regarded as one of the Rocks of Officialdom and Ages, a survival of forgotten methods, which will, we hope, be swept away by the intelligence of the future; we cannot discuss them here, more than to say that probably the efficiency of an examination is in inverse proportion to the amount of regulations which are necessary to be complied with before entering it. The Apothecaries' Hall errs least in this direction, shewing by this, as well as its other departures already enumerated, that it is distinctly both our most enlightened, and most generous Examining Body. We hope, that to combat the contemptible efforts of the Conjoined Corporations to damage an institution, the excellence, the good work, and the popularity of which has aroused their opposition, the Apothecaries' Society will obtain powers to give a *Surgical* qualification, in addition to those which they have already used with such benefit to the Profession; and thus successfully challenge, and rival, the popularity of the Diploma of the Conjoint Board, irreverently to be termed the *Diploma of the Diplococcus*.

"MATERIA MEDICA."

INTRODUCTORY LECTURE.

DR. HALE WHITE.

GENTLEMEN,—It is, I know, customary to begin a course of lectures with an introduction—a method which I think is, as a rule, a mistake, for it leads to the waste of an hour, during which the listeners are wearied with a string of commonplaces full of nothing. Now, I have no doubt that after this lecture is over, this criticism will apply very well to what I have said to you; but the fault will not be the fault of the subject-matter, but the fault of the lecturer, for whilst some subjects obviously require no introduction, materia medica does.

When I found that you and I were to discuss the subject of materia medica together three times a-week for three months, two regrets seized me—one that you should be doomed by the inexorable law of being signed up for the Conjoint Board to hear me, and one that I should be fated to be the means of making you spend a tedious and unhappy hour three times a-week immediately after lunch on a summer afternoon; for, gentlemen, whilst it is allowed on all hands that the word "dry" exactly expresses the study of osteology on which you have been engaged during the winter, it is equally true that we have no word in English to express how dry most students find materia medica; but is is from just this fact that I derive some slight satisfaction, for it will perhaps temper kindly your feelings towards me in my failure to make the subject interesting, and on the other hand in my attempt to avoid such a failure I know I cannot be less successful than some of your text books.

I am firmly convinced that all scientific subjects are interesting, and that their apparent dulness depends upon the method of their exposition. Should the science appear dull to those who have to learn it, the fault lies rather with the teacher than the science. To take an example other than that of materia medica—contrast the science of Psychology as expounded by Bain and Sully with the same placed before us by Spencer and Darwin; the former make it like a nauseating food, the attempt to introduce it into our minds leads to feelings of absolute loathing, whilst after Spencer and Darwin we feel invigorated and refreshed. Why is this? Because Psychology as taught by Bain and Sully consists either of platitudes or facts which are not made to follow each other so as to form a coherent whole, whilst by reading Spencer and Darwin our reasoning faculties are exercised, and we feel that each fact is not so much individually important, as is its connection with other facts in their turn not very important. What, again, can be more tedious than a museum full of nothing but so-called "objects of interest?" What can be more interesting than a museum is to one who appreciates that the "objects of interest" are facts having some connection one

with another? Do not, however, imagine that I sneer at facts. I adore them; and considering the enormous number of falsehoods that are circulating in medical literature, any good, true and honest fact is to be welcomed and treated reverentially and tenderly; but if the facts have no bearing in the present state of our knowledge, put them by till they have, their time will come some day. Do, for goodness sake, cease to learn facts as such; abolish tables of anatomy, tables of physiology, and all such things. Any of you who were with me in the Dissecting Room, when I used to teach anatomy, will remember how I always insisted that the mere learning of facts parrot-like from a table was iniquitous, immoral and useless. You, if you do it, are cheating yourselves into a false idea that you have a knowledge you do not possess. I always used to beg of you not to remember how many things were under the Deltoid or Gluteus maximus, but when you were asked the question to answer it by working it out from your own knowledge of the position of the parts, so that your reply becomes the answer of an intelligent individual, an original answer, and not the answer of a parrot. Remember that phenomenal memories are sometimes found in persons with a strong tendency to insanity. The most remarkable instance of mere memory that I know is that of Menétrier, who could repeat 300 disconnected words after once hearing them, but his is certainly not the greatest mind the world has seen. Contrast this with another phenomenal memory, that of Pascal, of whom it is said he never forgot anything he read or thought. He was a distinguished genius, but he remembered his facts in the way I want you to remember yours, namely, in thought one with another. Furthermore, bear in mind that if you learn facts in their relation to each other, your mistakes will be chiefly those of omission, while if you learn them empirically your errors will be mostly those of commission, which you know full well are far more fatal to a candidate's success than those of omission; but for the far higher reason that it is nobler to be a reasoning human being than a fact-remembering parrot, try to learn in the way I have indicated.

Now, the reason why materia medica has always been looked upon as the dryest of dry subjects is because the facts have been made all important, and the reasoning part of the science has been shoved into the background. At present no doubt there are a large number of facts, such as doses, to be learned, the reason of which we cannot at present see, but as investigations into the relation between the physiological action and chemical constitution of drugs go on, perhaps even the reason for doses will become apparent; anyhow let us for the present, in order to make the study at all palatable, have as few facts but as much reason as possible. Throughout these lectures I shall try, whenever I tell you a fact concerning a drug, also to tell how that fact is made of use in medicine.

The word materia medica embraces many sub-divisions.

1. By materia medica proper we mean an acquaintance with the remedies used in medicine, the places whence they come, the crude substances, plants or animals whence they are derived, the methods by which they are obtained, and the means of distinguishing their purity or adulteration.

Now, as my object is to tell you how to apply drugs in disease, I am not going, even if I could, to relate to you how to gather cinchona bark, or to describe to you the countries whence it comes—all very interesting, no doubt, if you were going to be a traveller for a firm of wholesale chemists, or were going out to grow quinine, but quite useless to you as you are going to practise in England, and will get your quinine direct from the wholesale chemist; nor even shall I tell you how quinine is prepared from cinchona bark, partly because I have never prepared it myself, and therefore my description might lack important practical details, and partly because you will never have to do it unless you throw up the profession and become chemists. To expect you to know these things because you use quinine is as reasonable as to expect you to know all about iron ore and the places in which it is found because you use a scalpel in dissecting, or to expect you to know all about

sheep-farming in Australia because you wear a coat made of wool. I shall not even tell you how to detect impurities and adulterations in drugs, because if you suspect them to exist you will of course send the specimen to a public analyst. It would be far more reasonable to expect you to know how to tell whether butter contains butterine than to tell whether strychnine is pure, for you use more butter than you do strychnine. Furthermore, you have so many facts to learn that any which you need not carry in your head, but can always find on reference to a book, you may in charity to yourselves leave in the book. I am sorry to say some examining bodies still expect you to recognise the crude drugs, an acquirement quite useless to you, and inasmuch as you can look at them for yourselves quite as well as I can show them to you, we shall not spend much time over them.

2. The second division of materia medica is pharmacy, or the preparation of drugs for administration. Of this you must know something. You must know the important ingredients of mixtures and pills ordinarily used, and perhaps it is as well to know how to make some of them on an emergency, but really this is hardly necessary, for now-a-days they can all be obtained ready made from the wholesale chemist, and also the practical pharmacy classes will teach you all you need know concerning this; therefore we shall say but little about it.

3. But that part of our subject to which we shall pay most attention is Pharmacology, or the action of drugs upon the body, and Therapeutics, or the application of that action to medicine. The word therapeutics means in its widest sense the knowledge of all the methods of curing disease; it will therefore include an account of many things, as climates, baths, &c., not usually called drugs. These we shall have to study, and shall only leave out the obviously surgical method of curing disease, such as splints.

This leads me to remark that I do hope you will try to disabuse your mind of the too common notion that disease can be cured by drugs and drugs only. It is a pernicious notion, so deeply rooted in the minds of the public that we often have to give drugs to pacify our patients, such remedies being called placebos. Patients can rarely be brought to see that it is better to pay a fee without getting a piece of paper directing them to take a nauseous mixture which will do them no good than to have both to pay the fee and take the medicine. They seem to think that they pay not for the advice but for the prescription. Really it is almost as often a physician's lot to stop the taking of medicines as to order them. Not long ago I was called to see a lady whom I found to be ill in bed with thirty-two bottles of medicine on the bedroom mantlepiece—surely enough to make anyone ill. Her malady required no medicine. All the thirty-two bottles were thrown away, and the patient soon became quite as well as she will ever be. You will often meet with cases of hysteria that have been dosed with medicines, but which recover more rapidly without medicines than witn them. The reasons why drugs are so frequently useless is that often the disease is of such a nature that no drugs can cure it. Such for example as a sclerosis of the spinal cord, or in other cases the disease is the effect of causes which we have the power to remove, and the patient will get quite well if we remove them; thus, if a man fail to sleep because he does too much brain work, all the narcotics in the world will do no good till you have persuaded him to give up his work; and so with dyspepsia, till you have removed the cause you will not cure the disease, but remove the cause and the evil is often cured at once. But of the diseases which require more than the mere removal of the cause, there are many which are best treated not by drugs but by such methods as a peculiar diet, change of climate, baths, massage, &c., &c.

Another common mistake you must avoid is that of healing only that of which the patient complains. To take an example: a patient complains of wasting and you give cod liver oil; let us suppose, however, that this is the sequence of events; he is a busy lawyer, and tries to digest his dinner when utterly exhausted, like a man I knew who, when very tired, at 7 o'clock, would walk four miles home, when already he was completely worn out, in order, as he said,

"to get up an appetite." Our patient's exhaustion affects the whole body, consequently the stomach cannot digest the food, therefore it cannot be assimilated, and hence the patient wastes; now if you give him cod liver oil, it will only make him worse, for it will cause sickness; but if you treat the cause, your cod liver oil will be unnecessary, and your patient will soon recover. Why, gentlemen, if you treat your patients in the mistaken way just mentioned, all your fine medical education will be wasted. All you will require will be one of those pernicious "Tables," which tells you that cod liver oil is good for wasting. But what presumption it is for me to try and teach you this when it has clearly been taught by the wisest of men. Let me read you what Socrates says when he is talking to Charmides. "For the charm will do more, Charmides, than only cure the headache. I daresay you may have heard eminent physicians say to a patient who comes to them with bad eyes, that they cannot cure his eyes by themselves, but that if his eyes are to be cured his head must be treated; and then again they say that to think of curing the head alone, and not the rest of the body also, is the height of folly. And, arguing in this way, they apply their methods to the whole body, and try to treat and heal the whole and the part together. Did you ever observe that this is what they say. . . . Such, Charmides, I said, is the nature of the charm. Now I learnt it when serving with the army, of one of the Physicians of the Thracian King, Zamolxis. He was one of those who are said to give immortality. This Thracian told me that the Greek Physicians are quite right in these notions of theirs, which I was mentioning, as far as they go; but Zamolxis, he added, our King, who is also a god, says further, 'that as you ought not to attempt to cure the eyes without the head, or the head without the eyes, so neither ought you to attempt to cure the body without the soul; and this,' he said, 'is the reason why the cure of many diseases is unknown to the Physicians of Hellas, because they are ignorant of the whole, which ought to be studied also; for the part can never be well unless the whole is well'."

But let me beg of you not to imagine that because I have had to show you that you must not take away the fair fame of drugs by misapplying them, that therefore they are useless; some of them such as quinine and opium are among the greatest blessings that have been bestowed upon us, and in the course of these lectures I hope to show you the methods in which they may be used.

Probably as you and I jog along during the next three months over the very rough and tortuous path we have set ourselves, trying to arrive at some dim truths at the end of it, our difficulty will be to avoid the false sirens, that in the shape of countless drugs professing to cure this or that disease, will sing on all sides during our journey; for every true song there will be many more false ones. To give you an example: In the preface to his masterly book on Therapeutics, we find Lauder Brunton saying of Hydrophobia, "My own experience leads me to think that almost all well marked cases will have a fatal issue whatever the treatment may be." Yet at the end of the book he has been able to collect thirty-four proposed remedies for it; among others such uncouth things as absma, asparagus, hoaiguan, savadille, &c. Thirty-four tempting sirens in passing hydophobia and not one of them a true one. Did ever Ulysses or any knight errant traverse a path beset with so many difficulties; if we go wrong and seize the false, thinking it to be true, think of the due effect.

"The guileful great Enchanter parts
The Red Crosse knight from Truth,
Into whose stead faire Falsehood steps
And workes him woeful ruth."

Do let us therefore be sceptical. I am certain that the right frame of mind for a man who wants to be a physician is one of good healthy scepticism. But we must avoid "the falsehood of extremes," our worst error is that seeing thirty-four proposed remedies for hydrophobia are all false, we, when the thirty-fifth comes along as the true one, pass him by and pay no attention, instead of seizing him, making him a close friend, studying him and learning all his ways. Pardon me if I say this is a mistake I

think all of us are inclined to make; from a healthy scepticism we insensibly pass to a universal scepticism, a most unhealthy form. There is one other point I must emphasize. Do for your reputation's sake as thinking beings, and still more for the sake of your patient's life, pause before you apply at the bedside the results of experiments on frogs, on isolated muscle nerve preparations, or other physiological results.

There is such a temptation when one comes fresh and enthusiastic from the intermediate M.B. to apply all the results of the physiological laboratory too hastily, but, after all, this is only a slight logical mistake; the error those who do this make is that they forget the conditions are not the same. Why, it is well known that the very physiology of the same parts is different in different species; the forgetting of this fact has been the most fruitful source of controversy about cerebral localization. Is it surprising, then, that, considering the very different conditions, the results of drugs applied to the lower animals should not accord with the results obtained when they are applied to man. Then, also, very often the drug cannot in man be applied to the part we wish to affect, and produces serious effects before it arrives there; applied directly to a muscle, a drug may stimulate its contraction, but of what use is this if the introduction of it into the stomach causes intense vomiting or its presence in the system stops the respiratory centre? But when we come to our lecture on the mode of action of drugs, we shall have to consider this more fully. So unlike, indeed, are the conditions, that as a rule some really important empirical fact, as the action of quinine in ague, is of more importance than facts which having their basis on experiments at first seem more valuable. I do not want you to think I undervalue pharmacological experiments on the lower animals, they are most valuable, but I do want you to apply them thinkingly and not hastily to mankind.

Lastly, there is something which is necessary to you if you are to become great healers of the sick, but which I cannot teach you. You may have a thorough knowledge of therapeutics, but remember that your patients are, from the very fact that they are ill, peculiarly liable to be irritable and illogical, and therefore must be treated with some tact and gentleness, but yet with firmness, in fact if you will remember the firmness you will often cure where others have failed. Also throw off the mystery man, people are too well educated nowadays to be taken in by any such asinine nonsense, they see through you and despise you if you pretend that the art of healing is an inscrutable mystery, and if you pretend to a knowledge you don't possess. They will respect you much more if, when you don't know, you own up to it like a man, than if you attempt to cloak your ignorance. The improvement in the standing of doctors has taken place together with their own improvement. In days gone by they were called leeches, and nobles used to say to them "Hold your jargon," as does the Constable in "The Betrothed." In the medical profession it is true as elsewhere that honesty is the best policy. I can assure you I could name doctors who have lost patients by not attending to this simple truth.

There are many other things I had thought might fitly be brought in as an introduction to the study of materia medica, but since the publication of "Pilocereus Senilis" by your great teacher, Dr. Moxon, whose memory we all revere, the other points on which I would have touched are so much better put before you in his introductory lecture on this subject published in that book, than I could hope to do it, that I think I had better not show you how badly I should express the same ideas that have been put in such beautiful language by him.

CAMBRIDGE UNIVERSITY.

At the third examination for the degree of Bachelor of Medicine held last week, the following Guy's men were successful:—Part I., Surgery, F. R. B. Bisshopp and C. J. Whitby. Part II., Medicine, F. Beard, E. P. Manby, A. S. Taylor, F. Wyatt-Smith. Bachelor of Surgery, F. R. B. Bisshopp.

Passim.

The report of the Commission appointed to investigate M. Pasteur's inoculative treatment of Hydrophobia has not yet been made public, and, until this has been done, we shall act prudently in reserving our final judgment as to its efficacy. In the meantime it is painful to read such extraneous criticism as, for instance, that of Dr. Bell Taylor, who, in an address delivered before the Nottingham Medico-Chirurgical Society, makes the sweeping assertion that if M. Pasteur's treatment had been "worth a rush," *not one* of his 2,496 patients would have died!

This is fixing the standard quite preposterously high; even the anti-vaccinationists admit the power of inoculation to protect against small-pox, though they object to it on other grounds, and anti-vaccinationists are proof against any but the most invincible and palpable logic.

Yet vaccination is not an infallible preventative, and why should we expect perfection in one quarter when we have been satisfied with less in all others.

Dr. Bell Taylor makes a statement which is opposed to the results of all modern observers, viz., that there are no signs during life, or appearances after death which can claim to be considered proof of the existence of rabies in animals.

The arguments adduced by Dr. Abreu, in his monograph on the subject, are more worthy of consideration and are derived in part from the result of experimental research.

But it must be confessed that the whole subject is involved in considerable doubt and some measure of obscurity, and we await with interest the publication in full of the work which has been so zealously conducted by the commission of enquiry.

If the shade of the celebrated Mesmer reads the medical papers nowadays he must feel a glow of satisfaction (if a *shade* may be said to glow) when he observes the frequency with which the phenomena which he discovered crop up in those pages of wisdom, disguised it must be owned under a system of brand new scientific nomenclature, but practically the same as ever, for all that. "Ha, ha!" we fancy we hear him exclaim, rubbing his spectral hands with a grin of self-approbation. "They call it 'Hypnotism' now, and talk about 'verbal suggestion,' whatever that may mean; but it is just the same process as I taught the world in my day, after all. And I notice that they don't know any more about the real nature of the thing than we did, for all their boasted science."

These observations were specially suggested by the account of a confinement which recently took place under the care of M. Dumontpallier, in which the pains are reported to have been subdued by the induction of "Hypnotic" sleep, and by the comparisons drawn by this gentleman between the merits of Hypnotism and Chloroform as an anæsthetic during labour.

CLINICAL LECTURE.

On May 11th, Dr. Pitt gave his first clinical lecture, basing it on some cases of pneumonia.

The first case mentioned was that of a man, aged 48, a cobbler, single, and temperate in his habits. He was very poor and without friends, and consequently very little was known about him. Health appears to have been fairly good till last Christmas, when he had what was probably an attack of pleurisy. On March 31st was exposed to wet weather. Following morning felt unwell. Went to bed with bad cold. Was brought up to Hospital four days later. On admission was dyspnœic —very wasted. Understood what was said to him and answered questions, but repeated his answers, appearing to be somewhat confused mentally. Breathing shallow, rapid—left side of chest expanding less than right—dulness behind, extending into axilla—diminished voice, and breath sounds. Pulse rate double the respirations, pointing to chest mischief. Sputum blood stained, presenting appearance of prune juice.

The question that arose was whether this was a case of pneumonia at an early stage, or a pleuritic effusion. Nothing, however, could be drawn off with a hypodermic syringe the day after admission. Nothing noticeable about heart, liver or spleen. Trace of albumen in urine; one granular cast found; sp. gr. 1·022. Patient, however, seemed to be suffering from something more than pneumonia. A pyœmic condition of things was suggested by the profuse sweating, the delirium at night, the marked wasting in such a short time. On day after admission herpes appeared on the lips. Patient became very apathetic and collapsed; perspiration profuse; tongue dry, covered with sordes; the expectoration now ceased.

The question of a localised empyema cropping up, the hypodermic syringe was again used, but without result. He became more and more stupid, the physical signs not changing till second evening, when tubular breathing became marked at left base, rendering diagnosis of pneumonia certain. On the same evening ptosis of left eyelid became observable. On the third day he lost the power of looking to the right, eyes being directed towards the left. Pupils became unequal, and twitching of the corrugator supercilii was observed. Tubular breathing and dulness at base became more marked. Patient became more comatose, and died.

At the *post mortem* examination there was found to be pneumonia of the lower lobe of left lung and meningitis of left side of cortex of brain.

The meningitis was considerable and should, in Dr. Pitt's opinion, have been diagnosed. In those cases where meningitis complicates some other disease, it is certainly common for it to be overlooked. The symptoms of meningitis, so noticeable in uncomplicated cases, are passed over in consequence of their being either non-existent or trifling.

The points that should have led to a diagnosis of a lesion of the cortex were, the delirium which was excessive, the ocular phenomena, the ptosis, and twitching of the forehead.

With regard to the association of meningitis with pneumonia, not much has been published in England, owing probably to the scarcity of cases observed. But it is a complication that is well recognised on the Continent. Dr. Fagge, examining the Guy's Records, found three cases only where meningitis complicated pneumonia, two where it complicated pleurisy. And in the last thirteen years, Dr. White has found that only one case has been admitted to the Hospital. Of Dr. Fagge's cases, the first was that of a man (22), who was convalescent after an attack of pleuro-pneumonia. He was taken ill suddenly, three weeks after pneumonic attack, became delirious and died. The second case was that of a man who, admitted for pneumonia and meningitis, was found to be suffering in addition from an attack of gonorrhœa, which it was thought very possibly bore a causal relation to the lung and brain trouble. In the third case, the man was ill sixteen days, and was noticed to be more delirious than usual. At his autopsy he was found to have meningitis.

Of these three cases, the third most closely resembles the present one. The first case is remarkable chiefly for the length of time that elapsed before the meningitis developed itself. The second was probably a pyæmic condition of things following the gonorrhœa, rather than a primary pneumonia.

Constantly associated with pneumonia are certain micro-organisms. From the fact that in this disease these germs are invariably present in vast numbers, and that they scarcely occur in healthy lungs, one or two existing here and there at wide intervals, they would appear to be associated in some way with the disease, though it would, in the present state of our knowledge, be rash to state dogmatically that the germ and pneumonia stand in the relation of cause and effect to one another.

Four different varieties of the micro-organism have been described by Weichœlbaum. Two of them are identical in form and in their cultivation results with two of the pyogenic cocci; of the others, one is a bacillus, the pneumococcus of Friedländer, and the fourth a micrococcus. These are all marked by the possession of a very distinct capsule which does not take the stain so readily as the germ proper, the size of the capsule probably depending upon the favourable nutritive conditions afforded by their habitat. The same micro-organisms have been found in the cerebro-spinal fluid and in the granulations of the heart-valves where meningitis or ulcerative endocarditis have complicated the pneumonia.

We may suppose the germs to affect the lungs somewhat as follows. An individual catches cold, with the consequent deterioration of his general health. The circulation through a portion of his lungs becomes impaired, and the vitality of that part diminished. A suitable nidus is thereupon established, and germs settling in the small bronchi and alveoli set up great irritation. To remove the micro-organisms, an exodus of leucocytes takes place from the vessels. In the healthy individual the leucocytes would destroy the germ which has introduced itself, an occurrence which no doubt frequently takes place in crowded communities. But in the individual with general health

lowered, and with local diminution of vitality in lung, the germ gets the better of the contest, destroys the leucocyte and multiplies, rapidly attacking fresh portions of lung. A germ getting into the circulation and finding a suitable resting-place in the meninges or the valves of the heart, will set up a meningitis or an endocarditis.

The reason why meningitis is a more common complication abroad is to be found, Dr. Pitt thinks, in the unsanitary condition of the towns, the foul atmosphere tending to still further lower the already diminished resistance that the human frame normally exerts against germs, pneumonic or otherwise.

As an example of ulcerative endocarditis as a complication of pneumonia, a case of Dr. Hale White's was cited.

Man, 30, exposed to wet, caught cold, followed by pneumonia. Illness went on for three weeks without any clearing up. Man did not improve. Temp. rose, and patient becoming much worse, died.

At the Post Mortem.—There was found universal meningitis. Upper part of left lung solid, readily breaking down, and looking more like pulmonary apoplexy than pneumonia. Large granulations on valves of heart, which had ulcerated, setting up condition known as ulcerative endocarditis.

Ulcerative endocarditis frequently follows a septic condition elsewhere, Case of a man, related, with prostatic abscess, setting up ulceration of valves. Cases of ulcerative endocarditis seem to occur in groups. Dr. Pitt would suggest as a possible cause of this some atmospheric influence.

Dr. Goodhart has pointed out that in many cases meningitis may be caused by exposure to sewer gas, no other explanation being obtainable.

The ocular phenomena in this case are explainable as the result of cortical irritation. According to Dr. Ferrier stimulation of the posterior portion of second frontal convolution gives rise in monkeys to twitching of forehead, dilation of pupils, and conjugate deviation of eyes to opposite side.

Pathologically there is not much to support this view. The case of a child was mentioned, which, suffering from above symptoms, had a patch of tubercle in this situation, and another in posterior part of temporo-sphenoidal lobe, and it is a question whether the symptoms were not rather caused by the latter than by the former lesion. The other case the lecturer knows of is a case of fracture of skull where this portion of the brain was injured by spicules of bone. There is much more evidence that the movements of the eyes are connected with the region round the posterior extremity of the fissure of sylvius. A series of cases could be related where conjugate deviation has followed lesions of this portion of the brain. And in the case forming the subject of the lecture the meningitis certainly occupied this region. The twitchings of the forehead are connected with irritation of that portion of the cortex related to facial movements.

The other case that Dr. Pitt would draw attention to is that of a boy, who, soon after admission, presented definite signs of pneumonia. On the 7th day the temperature went down and the dyspnœa disappeared, and although the boy felt perfectly well, the physical signs remained as marked as ever.

This is a case in favour of the bacillary origin of pneumonia. The micro-organisms by their growth liberate some poison that causes the constitutional symptoms. As soon as they are killed, the patient recovers his health, although the results of their irritation persist as evidenced by the physical signs.

Pathological Notes.

Diffuse Sarcoma of Spine and Cranium. Softening of the Cord.

History.—F. 50. Has for many years complained of weakness in the back; and one year ago had an attack of "rheumatics." Great difficulty in walking came on by reason of the weakness in the back, and ultimately she was confined to bed about a month before admission. During the last few weeks her behaviour has been curious, and her memory has failed. Whilst being turned in bed a few days ago the L. clavicle was broken.

On Admission.—Pale; stout; very helpless; dozes much of the day; soft elastic pulsating swelling a little above ext. occip. protuberance, which becomes tenser on coughing, but cannot be reduced. It is an inch in diameter. The

bone beneath seems indented, and a rough edge can be felt round base of swelling. Much swelling round Fracture of Clavicle. Liver enlarged. Urine normal. No knee jerks.

Bronchitis set in. Patient became very weak and drowsy. Urine dribbled away. Refused food. Death on 18th day.

Autopsy.—The swelling on the head was due to a soft, red growth springing from the dura mater, and perforating the bone. Numerous small nodules scattered over the dura mater; no signs of pressure on the brain; three large masses of growth in the upper dorsal vertebræ, which had exerted pressure on the cord and produced much softening of its substance; osteoarthritic changes in left knee-joint. Much broncho-pneumonia at the base.

Diffuse Sarcoma of Cranium, Ribs, Liver, and Glands.

History.—M. 1 year.—Two months ago fell out of a high chair, soon after a swelling was noticed over left side of head in front.

On Admission—A little above and outside left frontal eminence, is an elastic swelling, 3 inches in diameter. No fluctuation or pulsation. Veins dilated over it. At the base of swelling the bone seems raised up all round it. The child is rachitic, but there are no signs of Cong. Syphilis, and no history on the parent's side. Exploratory puncture made, only a little blood obtained; bare bone felt on moving the cannula. Ten days later two other tumours developed on the skull, similar in character to the first. Child was now very drowsy and had wasted rapidly. T. 101. Pneumonia developed and the patient died on the 20th day. All the tumours had increased in size a good deal.

Autopsy.—The tumours on the skull were beneath the pericranium, in the bone, and projected internally displacing the dura mater inwards. The mass so formed was the size of a hen's egg, and rested on the orbital plate of frontal bone. By holding the skull cap up to the light two or three small bluish spots were seen, which represented fresh centres of growth in the bone itself. Several small nodules in the bones at the base of skull. The left frontal lobe of the brain was hollowed out by the pressure of the growth in front. Several deposits in the ribs on both sides of chest, and large masses in the glands all along the spine. There was an enormous mass in the abdomen from glandular deposit which had almost embedded the left kidney, and by its pressure on the ureter was producing hydronephrosis.

One nodule in liver, other viscera healthy. Much broncho-pneumonia, but lungs free of growth.

THE EXTERN.

Oft I paused and long I pondered;
More and more my wonder grew;
Far and wide my fancy wandered,
Rested not until I knew
Who this strange, this fearful creature,
Weary, wasted, weak and worn,
Travail traced on every feature,
Trial-tortured, trouble-torn.

Not long since he seemed the brightest
Happiest man of all his year,
Cares the smallest, grief the slightest,
Nought to dread and none to fear.
Briefly had the Conjoined Second
Cast a shadow on his joy.
But he passed and then I reckoned
All his a lot without alloy.

Quantum mutatus ab illo—
Now he haunts the colonnade,
With a face that 'wears the willow,'
As for water rates unpaid,
Or the library enthrals him
With a sad and sleepy air.
Reading, each in turn appals him
Meadows, Galabin, Playfair.

Not for long though may he linger,
Even here his peace is marred.
Soon he heeds a beckoning finger,
And accepts the proffered card.
Passes through the petrous portal,
Lagging footsteps, downcast eyes.
On returning, luckless mortal!
Charity! he faintly cries.

Much perplexed, at length I boldly
Asked of one who knew him well,
But of late had somewhat coldly
Seemed his greeting to repel.
"Prithee, O most noble cleric,
Tell me why this conduct strange
In your friend, the metameric.
What hath wrought such wondrous change?"

Scorn and pity, pain and censure,
Swayed in turn his visage grave,
That my verdure should so venture,
But at last he answer gave:
"Can a Guy's man be so grass-green
Not to know the pale Extern?
Such as he is, so have I been,
So must thou be in thy turn."

Days of pains and nights of labour
Press their print upon his brow,
Bow his backbone like a sabre,
Chalk his cheek, his courage cow,
Learning well by inexperience.
How prone man is e'er to err.
Proud, prescribing pil aperiens—
Poverty's deliverer.

Ceaselessly he wanders weary
In the realms of squalid woe,
Resting but in dens so dreary,
Fain he would still further go.
Haply in the slum he slumbers
Prey to prowling Acarus,
Or regales in countless numbers
Pulex and pediculus.

Strange the stories too that enter
Oft unsympathizing ears,
How his primary placenta
Filled his soul with boundless fears,
Sisyphus-like, vainly thrusting
To the place from where it came,
What he thought was bowel, trusting
Thus to shield himself from shame.

Then one morning found him flying
Headlong up the Boro' Street,
Hatless, coatless, bootless, trying
'Gainst his fears to match his feet,
Rousing residents obstetric
From the well-earned joys of bed,
To a patient, epileptic,
Whom he deemed already dead.

Yet we must excuse his errors,
(No man can at once be wise)
While his task will lose its terrors,
If to learn he rightly tries.
Woes like his don't last for ever;
Four week's course must soon be run;
And in years to come he never
Will repent these duties done.

REM.

EMBALMING, AND THE PHYSICIANS OF ANCIENT EGYPT.

The following account of the way in which the Ancient Egyptians carried out the process of embalming their dead may be interesting to readers of the Gazette. It is extracted from Henry Cary's translation of the works of Heredotus.

"There are persons who are appointed for the purpose (*i.e.* embalming); they, when the dead body is brought to them show to the bearers wooden models of corpses, made exactly like by painting. And they shew that which they say is the most expensive manner of embalming the name of which (called after Osiris) I do not think it right to mention on such an occasion; they then show the second, which is inferior and less expensive; and then the third which is the cheapest. Having explained them all, they learn from them in what way they wish the body prepared; then the relations when they have agreed to the price depart, but the embalmers remaining in the workshops thus proceed to embalm in the most expensive manner. First, they draw out the brains through the nostrils with an iron hook, taking part out in this manner, the rest by an infusion of drugs. Then with a sharp Ethiopian stone they make an incision in the side, and take out all the bowels; and having cleansed the abdomen aud rinsed it with palm wine, they next sprinkle it with pounded perfumes. Then having filled the belly with pure myrrh pounded, and cassia, and other perfumes, frankincense excepted, they sew it up again; and when they have done this, they steep it in natrum, (salt) leaving it under for seventy days, for a longer time than this it is not lawful to steep it.

At the expiration of the seventy days they wash the corpse and wrap the whole body in bandages of flaxen cloth, smearing it with gum, which the Egyptians commonly use instead of glue.

After this, the relations having taken the body away, make a woollen case in the shape of a man, and having made it, they enclose the body; and thus having fastened it up, they store it in a sepulchral chamber, setting it upright against the wall.

Those who avoiding great expense desire the middle way, they prepare in the following manner:—

When they have charged their syringes with oil made from cedar, they fill the abdomen of the corpse without making any incision or taking out the bowels, but inject it at the fundament; and having prevented the injection from escaping, they steep the body in natrum for the prescribed number of days, and on the last day they let out from the abdomen the oil of cedar which they had before injected, and it has such power that it brings away the intestines and vitals in a state of dissolution; the natrum dissolves the flesh, and nothing of the body remains but the skin and the bones.

The third method of embalming is this, which is used only for the poorer sort:—

Having thoroughly rinsed the abdomen in syrmaea, they steep it with natrum for the seventy days, and then deliver it to be carried away."

Sir Gardner Wilkinson in his work on ancient Egypt makes the following observations with reference to embalming:—

"It is evident from the mummies which have been found in such abundance at Thebes and other places, that in the three different modes of embalming several gradations existed, some of which differ so much as almost to justify our extending the number mentioned by the historians.

The extraction of the brain by the nostrils is proved by the appearance of the mummies found in the tombs; and some of the crooked instruments (always of bronze), supposed to have been used for this purpose, have been discovered at Thebes.

The incision in the side is, as Diodorus says, on the left; over it the sacred eye of Osiris was placed, and through it the viscera were returned when not deposited in the four vases."

Diodorus states that the cost of the first class of embalming was a talent of silver (about £250); the second 22 minae (or £60); and the third very trifling. Wilkinson considered that there must have been every gradation in price between these extremes.

The process is supposed to have been conducted by, or under the regulation of medical men, but many trades and branches of art were put into requisition.

The Egyptians, who claimed to have originated the healing art, were great believers in specialism, to judge by this passage from Herodotus.

"The art of medicine is thus divided among them; each physician applies himself to one disease only, and not more. All places abound in physicians; some are for the eyes, others for the teeth, others for the parts about the belly, and others for internal disorders."

"It is a singular fact that their dentists adopted a method not very long practised in Europe, of stopping teeth with gold, proofs of which have been obtained from mummies of Thebes."

Atkinson tells us that qualified doctors were paid certain salaries from the public treasury (lucky fellows!) and were withal not forbidden to receive fees from their patients. They could be punished by death for malpractice, were well acquainted with properties of many drugs, and are stated by Pliny to have practised post-mortem examinations for the purpose of discovering the cause of death.

Their ideas of ætiology seem to have been somewhat peculiar. Thus Herodotus tells us that:—"Their manner of life is this. They purge themselves every month three days successively, seeking to preserve health by emetic and clysters, for they suppose that all diseases to which men are subject proceed from the food they use."

W.

Sport.

GUY'S HOSPITAL ATHLETIC CLUB.

The Annual Sports take place on Thursday, June 9th, at Stamford Bridge L. A. C. Grounds, commencing at 2.30 p.m.

C. J. Prince and A. L. D. Meares have been elected Hon. Secs., and entries and subscriptions can be given in to them, or to any other member of the committee.

It is to be hoped that men will support the Club better this year, and go into training for the various events.

The U. H. A. C. Sports take place on Wednesday, July 6th, and if men would only go into thorough training, there is no reason why the Challenge Shield should not again find a resting place in our library.

GUY'S HOSPITAL v. CRYSTAL PALACE.

This match was played at the Palace on May 14th. Our best team was not available, Fripp and C. D. H. Rygate being absentees. Guy's won the toss, and elected to bat. Scott and Featherstone opened—the latter was soon dismissed for 1. Scott, when just settling down, was unfortunately run out. Things now went very badly for us, until W. G. Mitchell came in, when some splendid hitting was seen. Mitchell unfortunately could get no body to stay with him, and took out his bat for a most useful 45. The innings closed for 97.

After the usual interval, the Palace started with Janson and Wollaton, the former began to hit about directly, and was eventually out to a well judged catch by Budge; the score now stood 38-1-37. The next four wickets fell quickly. Curry and Smith now made a good stand, adding 53 runs during their partnership. The innings closed for 136. Bolus and G. W. A. Mitchell each taking four wickets.

We did better in our second innings—scoring 113 for five wickets, when stumps were drawn for the day.

Score:—

Guy's Hospital.			
1st Innings.		2nd Innings.	
W. J. Scott, run out	13	b Smith	10
G. Featherstone, b Umney	1	not out	3
J. H. Roberts, c Sub., b Umney	7	not out	14
B. Hilder, b Shorter	5	run out	19
E. J. D. Mitchell, c Cosens, b Shorter	4	b Cosens	28
H. B. Bolus, c Fox, b Shorter	4	b Cosens	0
W. G. Mitchell, not out	45	c Janson, b Cosens	19
F. M. Russell, b Umney	1		
H. B. Rygate, b Cosens	6		
E. J. Budge, b Cosens	0		
G. W. A. Mitchell, b Cosens	4		
Extras	7	Extras	20
Total	97	Total	113

Crystal Palace.			
F. W. Janson, c Budge, b Bolus	37	C. E. Smith, b G. W. Mitchell	17
A. W. G. Woollaton, b Rygate	5	G. Cosens, b G. W. Mitchell	10
S. Shorter, b Bolus	0	W. F. Umney, b G. W. Mitchell	14
C. J. M. Fox, b Bolus	1	H. Jackson, not out	0
F. A. Rehder, b Bolus	2	Extras	9
H. Hetley, b W. G. Mitchell	5		
P. Currey, b G. W. Mitchell	36	Total	136

GUY'S HOSPITAL v. BRENTWOOD.

This match was played at Brentwood on Saturday last, May 21st. Play was much interfered with by rain. We won the toss, and started with Scott and Fripp, and the score being taken to 34, Fripp was sent back. After this wickets fell fast, our opponents bringing off some splendid catches. No one could do anything against the Brentwood bowling, except Bolus, who took his bat out for a well hit 38. Rain now stopped play for a considerable time after which Brentwood started their innings. Ward played a careful game and Read hit well, but no one else did much. Pearce hit well just before the innings closed, the total of which was 83. Rain now came down in torrents, and stopped all futher play. Score:—

Guy's Hospital.		Brentwood.	
W. J. Scott, c Read, b Claughton	19	H. F. Ward, run out	16
A. D. Fripp, c Read, b Claughton	18	A. O. Penny, b Mitchell	0
J. H. Roberts, c Ward, b Claughton	7	E. C. Heatly, c Scott, b Rygate	3
H. B. Bolus, not out	38	C. H. Escott, c H. B. Rygate, b Mitchell	5
W. G. Mitchell, b Heatly	2	C. E. Nicholls, c Hicks, b Rygate	8
F. M. Russell, c Heatly, b Claughton	0	J. J. Read, c Fripp, b Rygate	16
R. G. Hicks, c Ward, b Heatly	0	Captain Claughton, c & b Rygate	0
C. D. H. Rygate, b Claughton	2	A. Gardiner, b Mitchell	7
G. M. Pratt, b Heatly	2	W. Pearce, not out	20
H. B. Rygate, b Heatly	0	G. Baker, lbw, b Bolus	3
A. Allport, b Claughton	1	C. A. Wood, b Bolus	0
Extras	8	Extras	6
Total	97	Total	83

The draw for the first round of the International-Cricket Challenge Cup competition, is as follows—

King's *v.* Charing Cross	May 24th.
London *v.* University	May 26th.
Guy's *v.* Mary's	May 27th.
Westminster *v.* Bartholomew's	June 2nd.
Middlesex *v.* St. Thomas's	June 3rd.

It will be noticed that, as usual, St. George's are the only absentees.

Charing Cross could only make 33 against 200 by Kings—H. J. H. Scott (last year's Australian Captain) contributed 32 for the latter.

NOTICE TO CORRESPONDENTS.

The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Guy's Hospital Gazette,
JUNE 11, 1887.

A CASE OF ENORMOUS HYPERTROPHY OF THE BLADDER, WITH ENLARGED PROSTATE.

I was consulted some time ago by a gentleman in his seventieth year who was suffering from pyrosis, flatulence and other symptoms of functional disorder of the stomach. He had previously consulted a gentleman in town, who prescribed for him a mixture of Acid Nit. Hydrochor. Dil. and Tr. Nucis. Vom., etc., which for a time gave him some relief, but, as he was living in the country, it was inconvenient for him to be constantly running up to town, and I was called in to attend him. I found that for some months he had lost flesh considerably, that he vomited occasionally an hour or so after meals, and generally on rising in the morning; the vomit consisted chiefly of clear fluid, sometimes of half digested food, but at no time had contained any blood. His general aspect was good; the eyes were bright, the tongue chapped and moist but fairly clean; there was no cough, no expectoration; a slight tendency to diarrhœa. Urine perfectly clear, specific gravity 1·020, free from sugar and albumen and from any indications of bladder mischief.

No treatment did any good.

I will not enter into a detailed account of the treatment of the case, suffice it to say that I did my best to relieve the stomach symptoms.

When I saw the patient in bed, and made an abdominal examination, I found no hardness or *localized* swelling over the stomach, and there was no pain or tenderness whatever; but I discovered, on palpation, a large spherical tumour extending from the umbilical into the epigastric region, which was moveable, defined, and somewhat elastic on handling, dull on percussion, and not at all painful. Seeing that my patient was losing power daily, I asked the friends to name any consultant whom they would like to see him with me. I accordingly invited the gentleman named to a consultation which he gave me on two occasions.

I should, perhaps, have mentioned before that the patient had suffered for years from very slight incontinence of urine (so trifling, however, in amount, that he had never mentioned the fact to me) and frequency of micturition, but there was no retention to speak of, for I saw him on several occasions pass urine with power and in a good stream. The swelling in the abdomen increased rapidly and reached to within three fingers' breadth of the ensiform cartilage, still retaining its cyst-like feel and dulness on percussion. On being asked whether he felt any pain he invariably answered "none whatever." In the other sex I feel certain that this would have been diagnosed as a case of Ovarian tumour. The patient grew gradually weaker, and eventually sunk from exhaustion; though, as will be seen, the precise cause of death was never ascertained, further than that for some reason the stomach was unable to retain any food. Circumstances (as is very often the case in private practice) prevented my making a general Post Mortem examination, though I wished very much to do so, but I was permitted to cut down on the swelling in the abdomen, and I confess I was somewhat surprised to find that it was simply an enormously hypertrophied bladder. Its very unusual size will be perceived when it is remembered that the swelling, on external examination, had been found to reach to within 2½ inches of the ensiform cartilage. The prostate was as large as a medium-sized orange. This, it may be said, was an explanation of the whole case, and probably in a great measure it was, the hypertrophy having advanced pasi passu with the enlargement of the prostate, but it must be remembered that the hypertrophy had been sufficient to compensate for the obstruction, for there was, as I said before, no retention, and I frequently witnessed the patient micturate in quantity and with power. When I discovered that it was simply bladder I passed a No. 7 catheter, thinking that it was greatly distended, but the catheter, which passed perfectly easily (for there was no stricture), drew off barely two ounces of clear limpid urine quite free from ropy mucus or other evidence of cystitis. On examining the interior of the bladder I found the mucus membrane pale and

reticulated, the strong muscular bands interlacing, and as Drs. Wilks and Moxon describe in their pathology, like the columnæ carneæ at the apex of the hypertrophied right ventricle of the heart. The right ureter was dilated and just above its orifice was a small sacculus, about the size of a filbert, the wall of which was thin.

The curious point about the case seems to me to be that there could exist this enormous hypertrophy with almost no local inconvenience (for the incontinence was so slight as hardly to deserve that name), and with no apparent retention. The patient had never had a catheter passed so the urinary flow was undoubted. Is it not conceivable that the gastric irritation was due to the condition of the bladder?

G. F.

N.B.—The writer of the above paper requests me to state that the specimen described is in his possession, and that he will be happy to present it to the Hospital Museum if it should be considered acceptable.

Ed. G. H. G.

IODIDE OF POTASSIUM IN SMALL AND LARGE DOSES.

Eliza S., aged 50, presents cicatrices beneath the lower jaw, such as follow suppuration of the lymph glands. She had, when a child, a purulent discharge from these places. In addition to these scars on the neck there are others upon the arms, extensive in places; and a patch of cicatricial tissue is present on the left cheek. The scars are old, and would appear to be the outcome of a disease which has been quiescent for many years. They are not syphilitic in origin.

At the age of 49 she first suffered from the affection of her left elbow joint now present. The joint was previously quite healthy. During the past seven months it has become increasingly swollen and tender, movement being attended with pain, until, a month ago, the signs of a chronic inflammatory process culminated in a smooth, globular swelling, which obscured the outline of the joint. It felt pulpy, and gave a deceptive sense of fluctuation. On the outer aspect a sinus was present, from which thin pus exuded. There has never been any injury to the part.

The patient would seem to be the subject of scrofula. No doubt, the chronic inflammatory condition of the elbow-joint is related to the scars in the neck and elsewhere. They are the outcome of "a condition of the malnutrition of the tissues: not a disease, but a diathesis; in other words, a tendency to certain forms of diseased action": for so Mr. Barwell delights in defining scrofula (Heath's Dictionary). By contrast, the definition in Dr. Fagge's "Medicine" appears strangely simple, and too good to be true. "Scrofula may be defined as chronic caseous enlargement, with characteristic suppuration and subsequent scarring of the cervical lymph glands" (p. 733, vol. ii.)

After lying latent so many years, it appears a little curious that the disease (diathesis, or tendency) should again manifest itself at the age of forty-nine. The scar on the cheek might, from its position, be the result of lupus, but whether it should be called a lupus-patch in a scrofulous person, or whether it should be looked upon as a "scrofulide," I do not undertake to decide.

It is possible that her "tendency" is responsible for the susceptibility to iodide of potassium which the patient displayed, though I am unable to support the supposition by any book-quotation. On the contrary, the iodide is recommended for scrofula in certain therapeutical works, whilst no mention is made of any susceptibility which would advocate care in the administration of the drug. This patient developed a rash, and had catarrhal symptoms, after two doses of five grains each. The rash resembled urticaria, and was present upon the lower part of the thighs and upper part of the legs, also about the shoulders.

A day or two after the disappearance of the rash, she was given iodide again, and took eight consecutive doses of 2½ grains each, in an ounce of water. No rash or other symptoms appeared, and apparently the dose was not quite sufficient, for a single dose of 6 grains in an ounce of water, given after a day's interval, brought out the same rash as on the first occasion. Mrs. S. now showed some signs of mental irritation, over and above urticaria, and seemed disposed to refuse to play any more. However, she was

"piped at" once more, with the object of seeing whether a large dose could be taken without the appearance of a rash, as is stated to be the case in therapeutical books. After a few days' interval she took a dose of 24 grains of the iodide in an ounce of water. In accordance with the statement made, no rash or other symptom followed.

E. GOODALL.

CLINICAL SURGERY.—June 3, 1887.

Amputations.

By Mr. GOLDING BIRD.

Mr. Golding Bird said his object was not to treat of this subject systematically, but practically. Before amputating a limb you have to consider what the condition of the patient will be after the amputation. In the case of a patient in whom amputation of the thigh must be performed, what method should be adopted? If the circular method is performed, corners will be left on each side of the stump, and the cicatrix will be over the end of the bone, and thus exposed to pressure on walking, the result being pain, and possibly breaking down of the cicatrix. If the flap amputation is performed, the flaps being of equal length, the same result will follow as in the circular method. Therefore, in amputating the thigh by flap method, the flaps should be of unequal length, and the longest flap should be the one that contains the fewest nerves and vessels, because it is less likely to give pain when pressed upon. In the thigh the anterior flap contains the fewest nerves and vessels, and therefore should be the longest flap. Also, be sure to cut the flaps as long as possible, so as to allow for the contraction of the tissues of the limb which occur after an amputation.

In amputating the thigh and the upper arm, two layers of muscles are cut through, a superficial and a deep; the deep being attached to the bone, the superficial being free. Patients often complain of "jumping" in the stump after an amputation; this is due to the contraction of the superficial muscles. When dressing the wound, this may be prevented by pulling the skin and muscles covering the bone as far down as possible and bandaging the limb from above downwards, instead of from below upwards. Also, if the flaps have been cut too short, or sloughed, the skin and muscles may be drawn down in the same way and fixed with strapping to which a stirrup and weight is attached. Most patients with an amputated thigh do not use their stumps in walking, but transmit the weight of the body to the edge of the artificial leg, upon which the tuber ischii is resting, the skin of the thigh not being used for bearing pressure.

If it is possible to do a Stokes' amputation at the knee-joint, then as there is skin over the stump which is used for bearing pressure, the patient will use his stump in walking. In this operation, in order to prevent the patella from being drawn upwards by the quadriceps extensors, the patella may be fixed in position by driving an ivory peg through the skin, on through the patella into the lower end of the femur. The peg should be long enough to project through the skin, that it may be removed when the bones are united.

In Pirogoff's amputation at the ankle, which resembles Stokes', in order to get good apposition of cut end of tibra and fibula with the cut surface of os calcis, and also to prevent the traction of the Tendo Achilles, the section of the os calcis should be obliquely downwards and forwards, commencing just in front of the Tendo Achillis. An objection to Pirogoff's amputation is that the skin which covers the stump is that which gives so much pain when the leg is put up with a back splint without a heel pad. It is found, however, practically that this skin stands pressure very well.

In Chopart's amputation the skin of the stump is also a part used to pressure. An objection to this amputation is that as the attachments of the flexors of the ankle have been removed, the Tendo Achillis will draw the heel upwards, and thus the part exposed to pressure will be the skin over the ends of astragalus and os calcis. This rarely happens, according to the experience of Mr. Cock. Another objection is that the weight of the

body will be thrown upon the centre of the os calcis, a part containing but little cancellous tissue, and thus causing sometimes inflammation of that part, leading on to abscess.

If the foot has been crushed in an accident so that on account of injury of heel, a flap from that part cannot be obtained, do not amputate as low down as possible, and take a flap from the dorsum of the foot, for the stump will be useless, for walking, but amputate in the upper one-third of the leg, for this will not increase the dangers of the operation, and there will not be such a long and useless stump. Do not attempt osteoplastic amputations, such as Stokes and Pirogoff, on patients who are not strong.

Amputations of fingers and toes should be performed in such a way, that the knife need not appear on the palm of the hand or sole of foot.

In amputating the index or little finger, the flap should be so arranged that the cicatrix, should not be in a position, where the thumb will not rub against it, that is in amputation of index finger, and where the hand would not rest in writing, in amputation of little finger.

In an accident which requires amputation of nearly all the fingers, leave something against which the thumb can be opposed.

OLD THEORIES ABOUT THE SPLEEN.

[I happen to possess an old manuscript note book of Physiology, some extracts from which may interest the readers of the Gazette. The full title is

Physiology or a Treatise of the Functions of ye various Parts of a Humane Body by Mr. Alexr. Monro Professor of Anatomy at Edenburgh.

Now there were three men of this name connected with the Edinburgh school in the first half of the last century and for a few years before. It is difficult to decide which of the three gave the lectures noted down in this book, but from internal and other evidence, it probably dates from about the year 1700. The notes are very carefully written, and it is possible (if not probable) that they were taken from a printed book rather than from oral lectures. One of the most interesting chapters is that on *Glandular Secretion*, and of this a small portion, referring to the functions of the spleen, is here given.]

Since the Circulation was found out, there have been a great many Uses assign'd to the Spleen. Ye Chymists wou'd have it send a fermenting Liquor to ye Liver, or to precipitate ye Bile from ye Blood and so render its Secretion more easy; but such Ferments as these are not in ye Body, and wou'd burst the Tender Substance of ye Spleen. Sr Richd. Blackmore maintains that it serves for Generation, for (says he) all the Parts of our Body are either usefull for ye Individual or for ye Propagation of the Species: now the Spleen is of no Use to ye Individuall, hence it must serve for ye Propagation of ye Species. But it's easy to see yt his Syllogism is lame in the minor proposition, for it does not follow because he knew no Use ye Spleen serv'd for to ye Individuall, it shou'd therefore have none. What induc'd him to think it did not service to ye Individuall was, that an Animall cou'd live tho' it were cut out, but the Animall does turn more Salacious (a Greater Quantity of Blood being sent by the Spermatick Arteries, consequently more seed seperated and more varacious) a Greater Quantity being sent to the stomach and so more Liquor Gastricus secerned). But those who have carried ye experiment far enough, as Mr. Peyer, have found that the Animall was for some time in pretty good Health, yet if it was kept a considerable Time, its Liver was found to turn bigger and harder, its biliary Ducts obstructed till at last it dyed. Tho' all now agree that the Spleen is subservient to ye Liver, yet they differ among themselves how it is so: Mr. Cowper alleges that it serves for accelerating ye motion of ye Blood in ye Vena Portarum, but a Small Artery sent out of the Aorta wou'd have done this to much better purpose; on ye contrary all imaginable care seems to be taken to diminish ye celerity of ye blood, for ye Arteries divide into very small Branches, which are spread on ye small Cells in the Spleen where it is almost entirely out of ye Laws of Circulation. Spoleti, who was one of the first Mechanical Physiologists, and Dr. Keill agree that ye Use of ye Spleen is to retard ye Blood; but they Differ about ye Design of this, for Spoleti wou'd have it be retarded, that its parts secede from one another, and so Secretion of Bile be more easy, for (says he) by a great Velocity of Blood it is more compacted and e contra. But Dr. Kiell again wou'd have it to be retarded that its parts might attract one another more strongly, and so ye bilious articles, which don't more easily combine, may have time to conjoin. He to support his Notion observed yt ye Blood wn stagnating or extravasated went into grumous lumps. To me Mr. Boerhave's opinion seems most reasonable, viz. yt ye Spleen being exposed to the alternate Motion of the Diaphragm and Abdominall Muscles, ye Blood in it suffers ye same change as in the Lungs, for by this conquassation the blood will be rendered thinner and finer, its Oils more rancid, its Salts more volatile, and all its Principles more exalted, and since ye Blood wc is sent to ye Vena Portarum from ye Chylopoietick Viscera has been spoliated of its Lymph and fine parts, and so will be too thick and gross for the Secretion of Bile, it by being mix'd with ye Blood from the Spleen, which consists of acrid and consequently exalted particles, is render'd more proper for the Secretion of so acrid a Liquor as the Bile is.

W. A. S.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

THE VALUE OF DEGREES.

SIR,—It has given me much pleasure to see that a writer in the last number of GUY'S HOSPITAL GAZETTE has championed the cause of the much and unjustly abused Apothecaries' Society. The ultitmate result of the struggle it is impossible to foresee, but meanwhile a few remarks on the relative value practically of the various qualifications open to the London medical student would not seem out of place.

The question must, I think, be considered first from the student's point of view. His object is to attain such a knowledge of his profession as may fit him to perform its duties hereafter—this knowledge is best attained, firstly. by his filling as many of the higher appointments at his own or other hospitals; secondly, by taking a "locum" whenever the chance offers—this last being especially valuable inasmuch as it affords him an opportunity of acquiring a knowledge of general practice at somebody else's expense.

The first end is, on the whole, best attained by passing as many of the so-called higher examinations as he can, though one unfortunately is familiar with many glaring exceptions to this rule. The second by learning one's work *honestly* and *well*. These two courses are quite distinct, but not necessarily incompatible; the objections to the first are the great expenditure of *money* and of *time*, not to mention the wear and tear of the mental machinery; to the second there are no obstacles but laziness and lack of ability.

Next comes the consideration of the value of the qualifications from the practitioner's point of view. One cannot nowadays pick up one of the medical papers without finding therein a leader or one or two frantic letters on the burning question of a M.D. for London students, and at first sight it would seem as if they had a good deal of reason on their side, their main argument being undoubtedly true, i.e., that the average man who takes the M.R.C.S., L.S.A,, or M.R.C.S., L.R.C.P., here does quite as much work as the individual who is put in at one end of one of the Scottish or other degree-mills and shot out of the other in four years' time nicely labelled M.B., M.S., bearing the mystic title of Doctor. On the other hand, should the "Diplococcus" be empowered to grant some such double-barrelled title as M.M.c.M.S. (which means Mast. Med. c. Mast. Surgery), other bodies similarly situated will be entitled to demand similar rights, and the title will no longer be any distinction at all. This brings us to the point at issue, i.e., is the title of Doctor of much use to one quâ advancement in practice? Most would say yes, but I think the advantages have been very much overestimated: a man who makes an ass of himself and consequently gets cut out by some M.B., C.M., generally says it is the title that did it. Such excuses are on a par with attributing "hot coppers" to a "little lobster salad" overnight, and should be met with the same scepticism. A man who knows his work, and does his level best, will always succeed, be he M.D. or L.S.A., and no amount of labels will make a "Juggins" a successful practitioner.—Yours sincerely, T.

ECONOMICAL REFORM.

SIR,—Now that we are looking for, and recovering help from, the outside public, in order to maintain the efficiency of out Alma Mater, the least we, who are working in her interest, can do is to exert ourselves to the utmost in the same direction; and much may be done by turning our attention to *rational* economy, remembering always that a penny saved is a penny gained.

It is, I think, unlikely that any one who has worked in the surgical wards will be prepared to deny that there daily goes on a deplorable waste in surgical dressings, and I am sure I shall be understating the matter when I state that, by proper care, at least 50 per cent. could be saved on this, by no means small item, in the current expenses; and that the consumption of Iodoform, for instance, could be cut down to one-third its present amount without any detriment to the patients. The extravagant waste of this expensive drug must be painfully patent to any one who gives the matter a thought. It would be a great boon if some of our House surgeons would try the efficacy of some cheaper forms of dressing, for instance, charcoal, either alone or in combination with iodoform; this line of treatment—I was going to say experiment, but that wrong weight might be given to the term—might be carried on, in the first instance in Samaritan Ward, with benefit to all concerned.

I have purposely not enquired into the actual annual cost of surgical dressings as I wish to write entirely unofficially, but I believe the authorities endeavour to reduce the expense as much as possible by buying in the very cheapest market, and this perhaps may be scarcely fair to the patients under treatment, still they do their best and have not the opportunity of economising *in the right direction*, while we have, and some of the Dressers, I know, avail themselves of this opportunity, and I feel sure if it be brought to the notice of others they will do their best to reduce the expenses without in any way deminishing the benefit meted out to those under their charge, even though some of our Surgeons may be over open-handed in the matter.—I am, sir, your obedient servant, EDWARD C. KINGSFORD.

Physical Society.

At a Meeting of the Presidents of the above Society, held on the 21st inst., the resignations of Mr. W. L. Braddon (general editor) and of Mr. E. H. Starling (clinical editor), from the staff of GUY'S HOSPITAL GAZETTE, were tendered and accepted. The following gentlemen were appointed to act in their stead:—General editor, Mr. C. J. Whitby, B.A.; clinical editor, Mr. G. Bellingham Smith. A vote of thanks was proposed to the late editors for their valuable services to the Society, and unanimously adopted.

Passim.

All Guy's men who are interested in diseases of the skin should read a short pamphlet* by Dr. Balmanno Squire, on the affection misnamed Lupus Erythematosus.

Dr. Squire points out that this name is misleading, as this a quite distinct disease from Lupus Vulgaris, and he also rejects as clumsy or inappropriate the various other titles which have been suggested, such as "Erythème Centrifuge" (Hebra), "Seborrhœa Congestiva," "Lupus Seborrhagicus," etc.

He proposes instead to call it "Vespertilio," a Latinisation of the popular title of "Bat's wing disease," by which it has long been known in this country.

According to Dr. Squire, "the most characteristic feature of the disease is its tendency to arrange itself on the front of the face in a definite and peculiar shape. In this, its favourite situation, it is wont to produce with its greenish-yellow scabs, a pattern of very striking configuration. This pattern has been compared by some to the shape of a bat with extended wings, by others to that of an outspread butterfly; the body, whether of bat or butterfly, is represented by a central patch on the bridge of the nose, and the wings by much larger lateral patches on the cheeks. The lateral portions of the pattern are commonly each of them joined on to the central portion by a narrow prolongation, and thus the fanciful resemblance is rendered complete." . . . "A scarcely less important characteristic of Vespertilio is its tendency to invade also, and that with remarkable constancy, another situation, namely, the pinna of the ear on either side."

There is an excellent colored life-size illustration shewing the typical distribution of the lesions in Vespertilio, and drawings exhibiting its histological characters.

The following are the chief points in the differential diagnosis of Vespertilio and Lupus Vulgaris.

"The normal map of Vespertilio occupies the upper half of the nose and the upper part of the front of the cheeks, that of Lupus occupies the lower half of the nose and the lower part of the cheeks; Vespertilio hardens and toughens the affected skin, Lupus softens it and also renders it much more pliable; Vespertilio never produces ulceration of the skin, Lupus often produces ulceration; Vespertilio never leads to destruction of the cartilages of the nose or eyelids, Lupus, when it invades the nose or the lids, often, nay generally, destroys the cartilages, with eventually total loss of the lower part of the nose or total loss of the eyelids, hence the name Lupus."

"The phenomena of the disease are produced by a chronic diffuse inflammation of the skin, which has, however, a special tendency to localize itself in and around the glands of the skin (especially the sebaceous glands, hence the situation), and which leads first to diffuse and clustered cell infiltrated structures, and finally to cicatricial atrophy."

The indications are either to promote the absorption of the degenerated débris of skin by such local remedies as a solution of soft soap in rectified spirit (Hebra), or to remove the débris by cauterisation or mechanical means, *i.e.* scraping.

These are some of the chief points of interest, but the whole of the short pamphlet is rich with important information.

At the risk of being considered frivolous, we will narrate an amusing incident which has recently come to our knowledge.

The hero is an old Guy's man, whom we will call Dr. Robinson, a country doctor, and an excellent sportsman to wit.

Perhaps his experience may prove serviceable to other Guy's men when starting in general practice. It is as follows:—One day Dr. Robinson (who had by the way an invincible objection to being professionally consulted in public places) met a patient of his in the High Street of the town, a lady of a certain age who suffered from dyspepsia and allied symptoms. She immediately accosted him, and proceeded to discourse at great length upon what she was pleased to consider her very critical condition.

* Lupus Erythematosus, or Bat's Wing Disease. By Balmanno Squire, M.B., Lond. J. & A. Churchill.

"Ah! my dear Madam," exclaimed Dr. Robinson, apparently quite overcome; "I plainly perceive that you are much worse than I thought. I should like to examine your tongue. Kindly close your eyes as tightly as you can, and extrude the tongue. I will have a good look at it."

The lady obeyed, and remained for about half a minute in this interesting attitude.

She then came to, as it were, and was pleased to find herself the centre of an admiring and interested crowd, one of whom was *not* her late medical attendant.

The word "late" is designedly employed, and embodies the sequel to this true story.

THE CRICKET CUP.

A meeting was held at University College Hospital a fortnight ago by the Committee of the United Hospitals Cricket Club, to receive a reply from Guy's Cricket Club to a letter sent to us by the Hon. Sec. of the U.H.C.C., which letter was fully discussed at a special meeting of the Guy's Cricket Club. Mr. Durham (President) pointed out that as very little was to be gained and a good deal to be lost (especially by men of future years) by our refusing to recognise the ruling of the U.H.C.C., in his opinion we could not do better than accept their offer of compromise, to which their letter practically amounted. Messrs. Wacher, Randell, Scott and Colelough spoke in the same pacific strain, and a resolution was unanimously carried instructing the Hon. Sec. to intimate to the U.H.C.C. our willingness to abide by their decision (that we did not lawfully win the Cup last season), on condition that they withdraw all unfriendly imputations, that the Cup be not removed from Guy's until after this year's final match, and that if we win the Cup this year it shall be considered that we have won it for three consecutive years. All this was amicably agreed to at the United Meeting, and thus ends the dispute about the Cup.

EXAMINATION PAPER AT THE FINAL EXAMINATION FOR THE FELLOWSHIP. MAY 25TH, 1887.

1. Describe the structure of a tegumental cicatrix. In what way does it differ from that of normal skin? To what diseases are scars liable? Describe the clinical and histological features of these diseases, and give their treatment.

2. Describe the different forms of hare-lip and cleft palate, explaining them developmentally. With reference to hare-lip, describe the operation which you would select for each variety.

3. Discuss the relative advantages and disadvantages of lateral, median, and supra-pubic lithotomy. Describe briefly the three operations named.

4. Describe the pathological changes which bursæ may undergo, with especial reference to those which implicate important parts.

LINES FROM THE DISSECTING-ROOM.

Time sternly marches! The resistless scythe
Mows hearts and hopes, and minds and fears away—
These shrivelled limbs were graceful once, and lithe:
This ghastly face once glorious as Day.

But yesterday, the bloom of glowing youth
Freshened this form, by passing years down-trod,
And Sacred Fire, life's veiled mysterious truth,
Stamped it an image of Eternal God.

A mind there was, that guided fancy's reins,
And kindled in the Creature thoughts sublime;
Fluttering with fleeting joys and passing pains—
Where is it now? Why has it fled with time?

Unveil the Mystery! Let the keen knife
Unravel the recesses of the frame
And—the unwrapped Machinery of life
Leaves wonder more, and Ignorance the same.

"Where is, where was Life's seat? What is't that dwells
"King-like, enthroned in darkness, ruling man?
"That holds his court in little sightless cells,
"That ends in the Unknown, in it began?

"Ask Time his Age! Immeasurable Space
"Holds not an answer to the Secret, nor
"Can the swift-flying feet of Fancy trace,
"Sooner, the limits of the Evermore.

"Reason rests not in th' Infinite! It finds
"Repose in the *Unknowable*, alone
"And there is something yet, beyond our Minds,
"A Power, that Governs, and a Mighty One!

"Yet More. Traditions in the human breast,
"The Hope, The Surety not to wholly die;
"Are relics of the Oath in Heaven express'd
"That *Man be crowned with Immortality*,

"Oh Life Immortal, lit by flashing soul
"In Harmonies material, with dread fire!
"Oh thou, whom, wrapped in God-like glorious whole!
"Wondrous and frail together, these conspire
"To make the splendour of Created Things
"MAN!—All thy glory is a borrowed breath
"Speed into farthest space, on swiftest wings
"Thou art still troubled with the Fear of Death!

"The hollow blankness of the dreary grave,
"Whereat the young heart chills like sickening flower,
"Is but the ebbing of a glorious wave,
"Gathering itself unto the Unseen Power.
"Whose hand strikes chords of Life in the great stave
"Of a divine existence every hour."

* * * * *

This scalpel severs the oblivious brain,
Where LIFE, once busy Potentate, held sway;
Dead is the Sacred Fire, the Vassal Reign
Ended, the Soul has broken into day!

W. L. B.

A CASE OF UNUNITED FRACTURE OF THE HUMERUS—WIRING—UNION.

UNDER MR. DURHAM.

Howel, J., æt. 64; healthy; temperate.

October, 1886.—Was thrown out of a cart, and amongst other accidents sustained a simple fracture of the right humerus.

The fracture was the same evening put in position, and placed in anterior, posterior and lateral splints.

At the end of seven weeks no apparent union had taken place; the arm was examined from time to time for three months, and no union occuring he was sent up to Guy's, and was admitted January 18th, 1887. Throughout the entire time he wore splints. No friction between the ends seem to have been resorted to.

On admission.—Patient still wore the four splints to the arm; the hand, but not the elbow, was supported by a sling. There was no pain. It was found that the right humerus was fractured about the junction of the upper and middle third, above the insertion of the Deltoid. There was no thickening or remains of callus. Very free movement in all directions in a flail-like manner was possible. There then appeared to be loose fibrous union.

Treatment.—A plaster of Paris splint was moulded to the arm, and this was worn for three weeks, when a perforated zinc splint was substituted. The patient being nothing bettered, Mr. Durham decided on wiring the two ends.

April 22.—A vertical incision was made down to bone over the fracture, and the two ends freshened by oblique sections; the drill was then used obliquely, and the parts drawn together by means of platinum wire No. 6. The wound was dressed with Ol. Carbolicum and Tr. Benzoin, and the usual gauze dressings with Iodoform. Finally a perforated zinc splint was applied, enclosing the shoulder, arm and forearm, together with a hand piece.

April 23.—T = 100·2.

April 26.—T = 98 6; since which time to the present date the highest recorded temperature is 99·4.

May 6th.—First dressing; wound quite healthy and sweet.

May 20th.—Second dressing; wire removed. Both these dressings were done under $C.H.Cl_3$., and the greatest care taken not to allow any movement between the parts.

June 3.—Third dressing. Union as firm as could be expected at the end of six weeks.

Remarks.—On account of the patient's age this case did not promise to be a very suitable one for wiring; but on the other hand, the patient's former mode of life and then condition, gave reasonable hope for success. He has been throughout excessively easy to manage, keeping the arm night and day immoveably in the same position. The good to be derived from non-meddlesome dressings is well exemplified by this case. Such results as this would seem to encourage the more frequent performance of the radical cure in preference to the milder forms of treatment in neglected cases.

A. H. W.

STRETCHING THE SUPRA TROCHLEAR NERVE FOR THE PAIN OF SEVERE GLAUCOMA.

Catherine F., æt. 53, admitted into Ruth Ward, March 1st, 1887, under the care of Dr. Brailey, on account of the severe neuralgic pain of glaucoma.

The affected eye, the left, is very hard (T + 3). Its lens is uniformly, though not densely opaque. The cataract is probably of recent origin, and evidently secondary to the glaucoma. The iris is discoloured and tremulous on rapid movements of the eye. The pupil is fixed, and of medium size. The anterior chamber is rather deep. There is considerable ciliary injection

V = PL only.

The right eye is absolutely blind, probably from an old iritis, as the iris is rust-coloured, the pupil small and occluded. The lens is cataractous, with thickened and opaque capsule. Tension slightly reduced.

Dr. Brailey thought it clearly expedient to leave the right eye alone; and the left eye, though not quite so hopeless as regards light, very unpromising, for, even after the successful reduction of the tension by operation, he could

not expect to extract the lens with much hope of restoring sight to an eye so altered by disease as this must be.

On March 2nd sclerotomy was performed. The tension, normal for several days after the operation, rose somewhat on March 10th, but afterwards gradually decreased, again reaching the normal on the 15th, where it remained so up to the 25th, when the patient inadvertently struck the eye a violent blow against a piece of furniture. The day following it was a little hard and painful, but it again became quiet till the 29th, when she left the hospital at her own wish.

On April 5th she returned with the eye extremely hard (T + 3), and the anterior chamber obliterated. There had been severe pain for two days. "She had never felt the eye the same after the blow."

On April 7th an iridectomy was done, though with great difficulty, on account of the advanced position of the lens. On April 9th the tension was noted to be normal, and it remained so, the eye being quite free from pain till April 19th, when she left the hospital.

She again returned on May 10th with most severe pain over the left brow, radiating to the temple and teeth of the same side. The eye was stony hard (T + 3). The anterior chamber still existed.

As the pain was excessive, and since both iridectomy and schlerotomy had been performed without permanent relief, it was decided to stretch the supra-trochlear branch of the frontal nerve, in the hope that the neuralgic pain of this and the other affected branches of the fifth would be abated. Perhaps also the tension might be lowered. However, the pain had already diminished to some extent from the Tuesday (May 10th) after her admission to the Thursday (May 12th), on which day the operation was performed.

As a guide to the course of the nerve as it emerges from the upper and inner part of the orbit, a line was taken from the angle of the mouth to the inner canthus of the eye of the same side, and so on over the upper orbital margin. An incision ½in. long was made in a direction downwards and inwards across this line just within the orbital margin. The knife was carried directly down to the periosteum at the outer and inner ends of the incision, the intervening tissue being more cautiously divided. The nerve was at length found, as it lay deeply on the periosteum, in two fine branches. These were drawn out and stretched to rupture on a strabismus hook. Three silk sutures were inserted, one deep and two superficial. The wound healed by primary union, some subcutaneous thickening still remaining.

After the operation the neuralgic pain ceased almost entirely, and there has been none since; but occasionally slight shooting pains. The tension fell till at the end of five days it was T+1 only, and three days later almost normal. Then it rose again gradually to T + 2 on the thirteenth day, though the pain was not increased. Tension is at present full.

Remarks.—The result of this comparatively new operation appears eminently satisfactory, when one considers the intractable nature of the case; the only other remedy available being excision of the eyeball. To this, however, there are natural objections:

(*a*) The eye retains perception of light, whereas its fellow is totally and hopelessly blind.

(*b*) It is sightly in appearance, when not inflamed.

The only thing which appears to qualify the successful result is that the pain abated considerably on the evening of the patient's admission, and this amelioration lasted up to the time of the operation. The evidence of operative relief would have been more conclusive had the excessive pain endured up to the time of operation. It has indeed been very much less since the operation than during the thirty-six hours immediately preceding it.

It is very remarkable that stretching this small nerve should favourably influence so wide-spread a neuralgia. This is, however, in perfect conformity with our previous experience of this operation. The temporary reduction of the intraocular tension is, not improbably, a direct consequence of the same operation, and is explained on the theory that the fifth is the nerve on which the secretion of the intraocular fluid depends. To those acquainted only with

the nerve as seen in the dissecting room, it would appear a very difficult matter to cut down upon and stretch it. All that need be said in answer to this is: that we have invariably succeeded in finding it, and that with but little difficulty. E. F. GARDNER.

HARD QUESTIONS.

It has often been said that they are the most successful investigators who best know what questions to ask; and it may almost be said of doctors that they are the most successful practitioners who best know what answers to give to their questioners.

As doctors we have a great deal to do with asking questions, but a great deal more to do with answering them.

Our training in the latter branch of our art begins very early, for the examinaton system gives each one of us plentity of opportunity for exercise, and if practice could make perfect, our education in this particular must leave little to be desired. Only there is one very important difference between the questions which our examiners set us, and those which our patients and our friends ask us when we go into practice. With regard to the former (the examiner's questions) we never can resist the feeling that if only we could run home and have a look at our note books, we should find the required answer there somewhere all cut and dried and labelled and ready to be landed in. But with our patients' questions we do not have this particular feeling. The question does not seem to have been asked before, and we have to make up our answers in each case for ourselves. Moreover, the difficulties are not all of the same kind, and a doctor who is clever enough at parrying one sort of probe-pointed questions may be found quite defenceless against another of a slightly different pattern. Some questions there are to which no categorical answer can be made because the answer may require a knowledge of certain data not as yet attainable. This form of difficulty has been well discussed by all obstetric writers, who deliberately charge their readers not to commit themselves to a direct answer when their patients anxiously enquire of them "How long will it be?"

Fortunately for us too, the more serious question, "Will he recover?" cannot always be answered by a monosyllable for very similar reasons. But many less solemn questions are even more unanswerable. A patient will bring us a bottle of medicine which Dr. So-and-So gave to his wife several years ago for a pain in the side. He will carefully uncork the bottle and, after giving it a shake, he will hand it to us to look at, taste, smell, and otherwise test; and then his face will express his mingled feelings of disappointment and incredulity if we tell him that we cannot possibly say whether that same medicine would be "good for" his own present ailment and aches.

Other questions are hard to answer because however much we try we cannot put our questioners at the point of view which we ourselves occupy while we are talking of diseases. A woman, whose daughter is dying from Addison's disease, is for this reason bad to satisfy when she asks "to be told exactly what is the matter" with her child.

Again, some questions are hard to answer because the word or phrase which forms the Keynote of the enquriy, does not mean to us quite what it means to the enquirer. For instance, if a man comes before us with a lump on his head as big as a five's ball, and asks us if we think it is a tumour, our natural sense of scientific truth and accurate language will prompt an immediate and emphatic affiirmative. But this would be to mislead the man grievously, for while our patient speaks of "tumour," what he is really thinking all the while in his own vague way, is what we call "cancer."

In other cases, again, the question admits of no real answer because it is put in such general terms that no single answer will fit all the examples which the general question includes. Do you believe in bleeding? Do you approve of lancing the gums? Are potatoes good for children? These are no extreme examples of the kind of question which is often lightly asked of the doctor; and if he is rash enough to answer such questions in all their naked generality, he may very likely live to hear his authority being quoted for some treatment which he would be the last to countenance or practice.

These are questions to which we cannot bring ourselves to answer, because of an irresistible conviction that we ought never to have been asked them.

A man of forty ought to be (in the words of the proverb) either a fool or a physician; so that when a healthy adult man of that age, or more, begins to ask us whether he ought to take pepper in his soup, or at what time he ought to go to bed, it is not always easy to answer in such a way that our reply shall be at the same time polite, learned and conclusive. Neither is it quite easy to answer with becoming solemnity a woman, for whose child you have ordered a poultice, when she simply asks you if you wish it to be hot or cold. Experience of life one would suppose must have taught any one capable of wording such questions the best answers to them. One would hardly have supposed it possible that an old gentleman of seventy should seriously ask his doctor to decide for him whether or not he should wear a night-cap. Yet it has been my strange fortune to be asked this very question. And I do not know how I might have answered it had I not happily recollected that the ever-inquisitive Boswell had once proposed the same problem to Dr. Johnson for solution, who replied with his customary decision: "That, Sir, is a question which will probably never be settled."

Nor must we forget another large class of hard questions which we can answer for ourselves in the pages of our own note books, though we may find it best to ticket our answers as "not for publication." Your readers will not have forgotten the story of Dr. Moxon and the clergyman. How, when the clergyman's family anxiously pressed the physician to tell them what he *really* thought

of the patient's condition, they were referred to a certain note book, and how they found there the answer to their importunate enquiry in the laconic sentence: "Lanky parson, with nothing the matter with him."

But doubtless your readers have had enough of hard questions. The list thereof might be indefinitely extended and the procession of the posers might stretch on to the crack of doom.

Let us be thankful that they do not all come at once, and that Time, the great solver of riddles, answers so many of them for us. R. J. RYLE.

Sport.

The Rowing Club is now in full swing at Putney—a result chiefly due to the exertions of Swayne and Allport. The Inter-hospital Fours are rowed on the 17th (heats) and 24th (final), from Putney to Hammersmith. One four—though we have not yet been together as much as could be wished, chiefly owing to the difficulty experienced in finding an efficient bow—is out every evening, and will probably consist of:—E. J. Mitchell (stroke); A. Allport (3); Bertie Whyte (2); and W. Winslow or W. C. Swayne (bow).

The Old West London Boathouse is now owned by the United Hospital Rowing Club, and they let part of the buildings to us.

RICHMOND v. GUY'S HOSPITAL.

Played at Richmond on May 26.

On Thursday, May 26th, we played Richmond, and just succeeded in winning. The finish was most exciting.

Richmond went in first and scored 135, Bolus taking 6 wickets for 29, Rygate 3, and W. Mitchell 1 wicket.

Our innings opened badly, Fripp, E. J. Mitchell, and Bolus, being out before the total reached double figures. W. Mitchell and Scott, however, made a long and invaluable stand, but were both out at 100—Mitchell's 46 being a most dashing display. We still wanted 36 runs to win, and, thanks to Featherstone and Russell, we got them.

RICHMOND.

First Innings.

F. W. Bush, c Mitchell, b Bolus	3	L. Booth, c & b Rygate	6
A. Springett, b Mitchell	4	Needham, not out	29
E. A. Bush, b Bolus	6	J. C. Jukes, b Bolus	9
R. S. Lucas. st Busteed, b Rygate	24	J. O. Smith, c sub., b Bolus	1
A. Young, b Reigate	34	A. Benjaman, b Bolus	1
W. Furze, c Rygate, b Bolus	7	Byes 9, l-byes 2	11
		Total	135

In the Second Innings F. W. Bush scored, c Mitchell, b Bolus, 11; E. A. Bush (not out), 5; Booth, b Rygate, 5; Benjamin, b Scott, 3; b 2, l-b 1.—Total, 27.

GUY'S HOSPITAL.

W. J. Scott, c furze, b Young	44	F. Soper, run out	1
A. D. Fripp, b Young	2	F. M. Russell, not out	13
E. J. Mitchell, b Young	0	H. Rygate, b Young	7
H. B. Bolus, run out	0	E. Budge, c E. A. Bush, b Young	3
W. G. Mitchell, c Springett, b Needham	46	Byes 9, l-byes 6	15
W. G. Featherstone, b Young	13	Total	144
J. H. Busteed, b F. W. Bush	0		

GUY'S v. MARY'S.

This match, in the first round of the Cup Ties, was played on Friday, May 27th, on the Kennington Park Ground.

The wicket was very dead, and rain fell nearly all day.

Mary's went in first but could do little against our bowling, W. G. Mitchell taking 7 wickets for 21, and Rygate, 3 for 28.

We started our innings with Fripp and Scott, but the latter, unfortunately, played the ball on to his wicket before he had scored. W. G. Mitchell, who came next, quickly hit up 18, and then Bolus joined Fripp and a long stand was made. The separation came at 90, Bolus being then caught for 45. E. J. D. Mitchell made 10, and then play was stopped by rain—Fripp being not out for 44.

MARY'S.

A. E. Freer, b Rygate	4	F. P. Hill, b Mitchell	6
F. Lewis, b W. Mitchell	6	E. Shaw, c Busteed, b Rygate	0
C. H. Balderson, b W. Mitchell	7	G. Garrad, c Bolus, b W. Mitchell	21
W. Farquharson, c Busteed, b W. Mitchell	0	R. T. Gravely, c Busteed, b W. Mitchell	13
B. Franey, c E. Mitchell, b Rygate	2	Extras	2
C. W. Leydon, b W. Mitchell	0	Total	61

GUY'S.

A. D. Fripp, not out	44	E. J. D. Mitchell, b Farquharson	10
W. J. Scott, b Farquharson	0	Extras	5
W. G. Mitchell, b Farquharson	18	Total	122
H. B. Bolus, c Garrard, b Freer	45		

GUY'S v. MITCHAM.

On Saturday, May 28th, we went down to Mitcham and made a most sorry show. Although C. D. Rygate bowled superbly our opponents put together 182, against which we could only total 28, and, following on, 26.

MITCHAM.

T. P. Harvey, c Soper, b Scott	46	F. Knight, b Fripp	15
W. Jones, c Roberts, b E. Mitchell	23	G. C. Mills, c Scott, b Fripp	7
T. D. Lee, l b w, b E. Mitchell	1	E. Harris, run out	2
W. Lyddon, c Fripp, b Rygate	42	W. Woodcock, c Featherstone, b Rygate	2
A. F. Clarke, l b w, b Rygate	33	J. Pillinger, not out	2
J. Caffarey, c & b Rygate	6	Extras	3
		Total	182

1st Innings. GUY'S.		2nd Innings.	
W. J. Scott, b Harvey	0	b Woodcock	0
A. D. Fripp, b Harvey	2	b Harris	0
W. G. Mitchell, b Harvey	3	b Woodcock	0
H. J. Roberts, c Harvey, b Lyddon	5	b Woodcock	11
E. J. Mitchell, st Clarke, b Harvey	0	c Harvey, b Harris	3
G. Featherstone, c Caffarey, b Harvey	1	st Clarke, b Harris	0
R. Soper, c Harris, b Lyddon	2	c Mills, b Harvey	5
C. D. H. Rygate, not out	8	b Woodcock	3
T. S. Jackson, b Lyddon	2	c Harvey, b Lyddon	3
H. B. Rygate, b Harvey	4	not out	0
Extras	1	Extras	1
Total	28	Total	26

GUY'S v. CHISWICK PARK.

Played on Wednesday, June 1st, and resulted in a fairly even draw.

We went in first, Bolus and Fripp opening the innings. At the luncheon interval the score was 42 for no wickets—the result of an hour-and-a-quarter's play. On resuming the total was taken to 72 before Fripp was caught for a careful 39. Bolus was out a few runs later for an equally patient 41, but Colclough and Scott put on another 50, and then W. G. Mitchell came in and hit the somewhat worn out bowling all over the field. When we were all out for 212, only an hour-and-a-half was left, and in this our opponents made 106 for 4 wickets—Williams, the Middlesex wicket-keeper of a few years back, showing some very hard but indiscriminate hitting for 63, in which he was missed more or less badly by several of our team. The fielding of our men this year is anything but satisfactory. Two and three years ago we were really very good indeed at this part of the game, but now it is not too much too say that their is not a single man in the team who is not constantly making mistakes. If we want to win that Cup again we *must* pull more together.

GUY'S.

H. B. Bolus, c William, b Hillyard	41	C. D. Rygate, c Farr, b Williams	2
A. D. Fripp, c Reischach, b Hillyard	39	F. Williams, h w, b Williams	1
F. Colclough, c Benavises b Hillyard	23	R. Soper, run out	2
W. J. Scott, c Treeling, b Williams	27	F. M. Russell, b Williams	9
W. G. Mitchell, c Reischach, b Williams	59	T. S. Jackson, not out	1
		Extras	8
		Total	212

CHISWICK PARK.

J Farr, b Rygate	19	J. Nicholl, b Bolus	14
J. Cagney, b Mitchell	0	H. P. Sartees, not out	0
G. Von Reischach, b Mitchell	2	Extras	8
W. Williams, not out	63	Total	106

GUY'S v. STREATHAM.

This match was played on June 4th. The ground was very dead owing to the recent rains; Streatham batted first and made 60. Bolus taking 6 wickets for 27 runs. We then went in, but could only total 54, 33 of which were contributed by Scott, who hit splendidly. Streatham made 115 in their second attempt, after which stumps were drawn. Score:

STREATHAM.

	1st Innings.		2nd Innings.
F. Lazenby, c Russel, b Bolus	6	c Haslom, b Bolus	0
E. P. Rathbone, run out	1	b Fripp	4
H. B. Powell, b G. Mitchell	1	c Fripp, b Mitchell	3
F. W. Leaf, b Bolus	4	c and b Bolus	32
E. C. Barnbridge, b Bolus	26	b Bolus	11
E H. Coles, c Culmer, b Bolus	13	b Bolus	3
N. C. Bailey, c and b Bolus	0	b Bolus	28
C. R. Sheward, b Bolus	3	lbw, b Bolus	16
J. W. Roughton, b G. Mitchell	2	b Fripp	4
H. F. Morice, b G. Mitchell	0	not out	0
J. A Druce, not out	0		
Extras	4	Extras	11
Total	60	Total	115

GUY'S HOSPITAL.

H. B. Bolus, run out	5	G. H. Knapp, b Barnbridge	1
A. D. Fripp, b Powell	5	J. Culmer, c Lazenby, b Bambridge	0
H. G. Roberts, c Rathbone, b Barnbridge	1	W. Haslom, run out	0
T. Joyce, c Leaf, b Barnbridge	7	G. W. Mitchell, b Morice	0
W. J. Scott, not out	33	Extras	1
G. Featherstone, b Powell	0		
F. M. Russell, b Powell	6	Total	54

EPSOM COLLEGE v. GUY'S HOSPITAL II.

Played at Epsom on May 28th.

GUY'S HOSPITAL.

W. E. S. Cobb, b Oldaker	0	J. R. Ingram, not out	8
W. K. Steele, b Kennard	1	S. Rivers, c Oldaker, b Lloyd	3
B. Hilder, b Lamphier	27	W. A. Haslam, b Lloyd	0
W. Sturges-Jones, b Oldaker	15	H. S. Archdale, b Lamphier	2
J. Fawcett, c & b Lamphier	12	B—6 Nb 3	9
H. W. Webber, b Lloyd	3		
G. W. Mitchell, b Lloyd	2	Total	82

EPSOM COLLEGE.

F. A. Oldaker, st Archdale, b Steele	6	E. Spencer, c Archdale, b Mitchell	5
D. G, Kennard, b Mitchell	1	F. R. Lloyd, c Fawcett, b Ingram	2
C. W. Lamphier, b Webber	16	C. W. Guage, not out	6
W. A. Montgomery, b Mitchell	10	J. W. Ensor, b Ingram	0
W. H. Bower, b Mitchell	0	E. C. Montgomery, c Haslam, b Steele	4
F. N. Cookson, c Steele, Ingram	32	B—5 lb 1 Nb—9	9
			91

WIMBLEDON SCHOOL v. GUY'S HOSPITAL.

Played at Wimbledon on May 21st.

GUY'S HOSPITAL.

T. S. Jackson, b Weston	20	J. W. Culmer, c Turner, b Ashburnham	29
W. E. S. Cobb, b F. James	0	E. Hunt, not out	30
R. W. Soper, F. James	19	W. A. Haslam, run out	7
J. Fawcett, c O. A. James b Weston	2	C. B. Braithwaite, b Clark	1
H. W. Webber, b Ashburnham	6	Byes 9, wide 1	10
H. Wilkes, b F. James	3	Total	141
W. Sturges-Jones, b F. James	14		

WIMLBEDON SCHOOL.

Harrop, not out	11	L. Ashburnham, not out	23
F. James, c Webber, b Culmer	0	Byes 3	3
Weston, c Hunt, b Soper	29	Total	66
Wilmot, run out	1		

W. Gillam, A. F. Turner, O. A. Jamas, H. H. Holland, H. Clarke, and R. Carwither did not bat, game was drawn.

NOTICE TO CORRESPONDENTS.

The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Guy's Hospital Gazette,

JUNE 25, 1887.

IT is by no means easy to find anything to say in these columns which will be likely to meet with *general* approbation. This little journal resembles all others in possessing among its constituency readers of every imaginable taste and disposition. There are those amongst them who are of so deeply serious and utilitarian a turn of mind that they resent the least digression into topics, which, however harmless in themselves, are not congenial to their own severely practical organisations.

To these enthusiasts anything of the nature of light literature, the hospital gossip, the chatty correspondence, the views of sporting contributors on our chances in the ensuing cup-match, all this is an abomination worthy only to be received with silent contempt. We do not wish to find fault with anyone, for there is nothing that we admire so much in Guy's men, and others, as earnestness, and this power of concentrating the mind solely upon one aim and object.

But what we wish to point out is, that this is, or should be, the organ, not of one section of Guy's life and thought, but of all its varied phases and conflicting lights and shades; and that there are many who would not be fairly treated if we filled our pages every fortnight with so many abstracted reports from the surgical registrar's room, so many from the medical side, and to stop up the gaps threw in here and there an examination paper, or odd paragraphs filched at random from the wide field of text-book literature.

And that this is so is proved by the fact that our contributors, who are sufficiently numerous to be considered representative, agree with us in declining to take too narrowly scrupulous, or scrupulously narrow a view of the legitimate scope of the GAZETTE. While it is our wish and our humble endeavour to please all, we cannot undertake to ignore the claims of any section of thoughtful and conscientious hospital life and work.

That great teacher whom we all loved so well, and whose loss we can even yet scarcely realize, was one of those who took the more liberal view of the answer to this question.

If we understood him aright it was the great aim of his career to make GUY'S HOSPITAL the training-place of men who should be known in after life as the possessors of lofty aims and universal sympathies, not mere learned pedants and medical automata.

His example (the example which he set in our wards and in these very pages) is good enough surely for us, and towards the same ideal to which MOXON soared on the strong pinions of his genius, let us, by our weaker methods and with more tedious advance, follow his course to-day.

We hope that our readers will find nothing aggressive or dictatorial in these remarks. They are intended as an apology, not as an attack; a reply to certain criticisms which have reached us from time to time; criticisms with which we cannot entirely agree, for the reasons we have already stated, but which are none the less always cordially welcomed, and entitled to our anxious consideration and respect.

If our readers will turn to the columns headed PASSIM they will find there an announcement which, we confidently hope, will reconcile them to whatever else in this number may seem to merit their disapprobation.

ROYAL COLLEGE OF SURGEONS.

JUNE 17TH, 1887.

SURGERY.

1. Give the attachments of the Omohyoid Muscle and its connection with the cervical fascia. State the relations which the muscle bears to the parts concerned in operations on the large vessels of the neck.

2. Describe the parts involved in the production of Talipes Equino-varus. Give the details of the several Tenotomies required for its relief.

3. Diagnose the different kinds of swelling which may occur in the inguinal region of the male. Give the treatment of each.

4. What forms of dislocation of the Ankle-joint are commonly recognized? Give their diagnosis and treatment.

5. What are the usual causes of acute Synovitis? Give the pathological changes and symptoms, in their order of sequence, in a case of this disease running on to

suppuration. Describe the treatment you would adopt in the different stages of the disease.

6. By what symptons would you recognise inflammation of the Middle Ear? What treatment would you adopt?

MIDWIFERY.

1. Describe the Mechanism of Labour with the head presenting, the occiput behind and to the left.

2. Describe the ordinary vomiting of Pregnancy and its usual course. In what cases may vomiting become dangerous to life during Pregnancy, and how would you treat such cases?

3. How would you treat a case of complete Placenta Prævia (1) at the thirtieth week of pregnancy, (2) at term, the os uteri being the size of half-a-crown.

4. Describe a Cystocele, and the ill consequences to which it may lead.

MEDICINE.

1. Describe an attack of Acute Gout. What conditions predispose to it? How would you treat it? By what means attempt to prevent a recurrence? To what changes in the Viscera may Gout eventually give rise?

2. What are the symptoms and signs of Pleuritic Effusion? How would you attempt to distinguish between a Serous and a Purulent effusion? Give the treatment of Serous effusion, and state what circumstances would in your judgment render it advisable to remove the fluid by aspiration.

3. Enumerate and give the differential diagnosis of the more common forms of Jaundice, with the treatment you would adopt in each case.

4. Give the action, uses, and doses of the following preparations of the British Pharmacopœia:—Creosote, Resin of Jalap, Infusion of Digitalis, Chloral Hydrate, Hydrochloric Solution of Arsenic, Solution of Perchloride of Mercury, Compound Tincture of Camphor, Tincture of Podophyllum.

Hospital News.

Dr. Perry has been appointed sub-dean.

Mr. F. F. Burghard, M.B., B.S., has been appointed to the office of Surgical Registrar; and Mr. J. H. Targett, F.R.C.S., to the post of sub-curator of the Museum.

Messrs. A. S. Taylor, and E. Goodall, have been appointed House Physicians.

Messrs. H. K. Roper, and G. Rowell, House Surgeons, to the Hospital.

OXFORD UNIVERSITY.

Mr. W. H. A. Jacobson has taken the new degree of M.Ch.

Mr. F. S. Hawkins has passed the recent examination for the degrees of M.B., B.Ch.

Mr. G. Pennell and Mr. F. H. Browne have passed the examination in Materia Medica towards the degree of M.B.

INTERESTING CASES IN THE SURGICAL WARDS.

22 Accident—Fracture R. Humerus with old Subglenoid Dislocation of Left Shoulder.
13 Lydia—Chronic effusion in Both Knees with Necrosis of Tibia after Enanthem.
13 Martha—Abdominal Tumours.
Cot C. ,, Extroversion of Bladder.
19 ,, Growth in Pharynx.
10 Job—Pyæmic Hip Disease.
3 Lazarus—Articular Ostitis of Shoulder with Abscess.
9 ,, Sarcoma of Lung and Back.
16 Naaman—Symmetrical Anchylosis of Jaw.
20 Luke—Lupus Vulgaris of Foot and Leg.
12 ,, Enlarged Knee (? Pulpy Arthritis).
11 Charity—Cerebral Abscess and Hemiplegia after ear disease.
Cot A. ,, Strangulated Inguinal Hernia after old operation for Radical Cure.

INTERESTING CASES IN THE MEDICAL WARDS.

5 Philip—Aortic Stenosis.
21 ,, Chronic Pleurisy, Mediastinal Liver.
22 ,, Malignant Liver.
27 ,, Icthyosis.
37 ,, Laryngitis.
21 Stephen—Aortic Stenosis.
8 ,, Locomotor Ataxy; Bilateral Paralysis of Cords, Charcot's Disease of Joints.
11 ,, Obscure Pyrexia.
35 Mary—Anasarca.
41 ,, Peripheral Neuritis.
42 ,, ,, ,,
49 ,, ,, ,,
46 ,, Acute Paraplegia.
4 John—Aneurysm,
13 ,, Intrathoracic Growth, Empyema.
19 Miriam—Paralysis Agitans.
26 ,, Hydrocephalus.
27 ,, Hodgkin.

Leprosy among Norwegians. — The Norwegian Government has taken another step towards discovering the origin and nature of Leprosy, which is so common on the west coast of Norway, by despatching Dr. G. A. Hansen, to North America for the purpose of enquiring into the heredity of the disease among the Scandinavian emigrants to the United States.—*London Medical Record.*

A New Parasite in Beef.—Wolf has found in the intermuscular connective tissue of the flesh of oxen a parasite which is apparently the larval form of an ascaris. It is encysted like a trychina, but is somewhat larger, and is spherical in shape.—*Amer. Practitioner & News.*

THE FUNCTIONS OF THE ROLANDIC AREA.

Within recent years it has been established that the convolutions of the human brain situated in the neighbourhood of the fissure of Rolando, are in some way or other concerned in the execution of voluntary movements; but the exact nature of the part so played by this area is still a matter of theory. Facts are interpreted in different ways by different observers. In the last number of "*Brain*" (which journal has been adopted by the Neurological Society as its organ) Dr. Bastian has given at some length his views of the convolutions in question. Every one recognises the fact that in some manner or other the mind is conscious of the expenditure of muscular energy, but as to the means through which this consciousness arises, there is no general agreement. Waiving differences of definition let us call this power of appreciating muscular exertion the "muscular sense." The chief views as to its origin are three in number. According to Wundt, Bain, and Hughlings-Jackson, it accompanies the discharge of energy from the motor centres in the cerebral contex, and in no way depends upon sensory impulses. The second opinion is that it is the result of impressions, which, arising from the skin, muscles, fasciæ and articular surfaces of joints, are recived in centres of the cortex; between these centres and the motor centres connections are formed; hence the association of movements with the muscular sense. Ferrier (who subscribes to this theory) places the centres for the reception of these different impressions in the falciform lobe. Lastly, the view held by Bastian and others is that the impressions arising from the muscles themselves form a most important constituent of these different impressions, and give rise almost entirely to the muscular sense; so important, in fact, as to require a large area of the cerebral cortex for their registration, apart from that reserved for their reception, tactile or other impulses; and that this area is that to which Ferrier has applied the term "motor." Under this view the true motor centres are located in the medulla oblongata and spinal cord.

This theory of Bastian's is borne out by several considerations, clinical evidence can be adduced in proof of the assertion that the muscular sense does not entirely, nor even to any considerable extent, depend upon tactile and visual impressions. In cases of functional anesthesia and hemianæthesia it is not common to find that the muscular sense is lost (it is surprising to notice, however that Ferrier states the contrary); but Bastian quotes two such cases in which it was absent, and in which it was further observed that when the patients were prevented from seeing, they were unable to perform the simplest action; there was in fact a functional paralysis, according to Bastian of the muscular sense, according to Ferrier, of the motor centres. It may be remarked here that as experiments on animals can tell us nothing of the 'muscular sense' correct observations upon man are of great value, especially as there is no little discrepancy in such records as have already been made known. Locomotor ataxy, anæsthesia, and cortical disease may be studied with advantage from this point of view.

In the infant the association between certain sensations and movements is at first more or less accidental. An object is presented to the child's eyes, and as a result of the visual impressions a muscular effort is made with the view of grasping the object. Perhaps after several attempts the effort is successful. Now the muscles thrown into play during these efforts give rise by their contractions to afferent impressions, which serve as guides to the next performance of the act, so that it can be executed without the help of other afferent impressions (visual or tactile), either actually or ideally revived The path traversed by the nerve-impulses is as follows: from the muscles to the centres for the reception of the 'muscle sense' impressions; thence along 'viternuncial' fibres to the motor centres, where co-ordination takes place, and from these to the muscles. What will be the result of destruction of the muscular-sense centres? paralysis of all movements except such as are purely reflex, and loss of muscular-sense. While stimulation of these centres will give rise to contraction of muscles varying with the centre stimulated, results exactly the same as those obtained by Ferrier in his experiments on his so called 'motor' area. If afferent fibres going from muscles to the muscular-sense centres be divided, impairment of that sense will occur, together with, not paralysis, but ataxy. If, on the other hand, as Ferrier thinks, the muscular-sense centres are situate with the tactile centres in the falciform lobe, the same results ought to follow destruction or irritation of this portion of the brain as ensue upon that of the so-called 'motor' area. For, as Ferrier himself has shown, stimulation of such sensory centres as the angular gyrus and the superior temporo-sphenoidal convolution, give rise to associated movements. It does not appear however that movements of such a nature are connected with the tactile centres. This observer and Yeo have also demonstrated that stimulation of certain roots of the great nerve plexuses give rise to muscular movements which are the same as result from stimulating certain portions of the motor centres in the cortex. It may be concluded from these experiments that the spinal cord contains 'centres of co-ordinated synergic muscular movements,' as Bastian contends.

The argument derived from the fact of the degeneration of the pyramidal tract from the cortex downwards to the lateral columns does not tell against the 'muscular sense' theory of the Rolandic area. The large cells in the cortex of this portion of the brain would equally exert a trophic influence over this tract of fibres, whatever the nature of the efferent impulses conveyed thereby, that is, whether the fibres were truly efferent from motor centres to muscles, or communicating from sensory centres to motor centres, provided that the impulses always travelled in the same direction, as is the case.

That further investigation into the functions of the so called motor area, especially in the case of man, is much required, will be evident from the fact that

Ferrier, relying upon experiments on monkeys, believes them to be purely motor. Gowers [*Diagnosis of diseases of the brain, 1885,*] distinctly states that in the human subject destruction of this area gives rise to some loss of sensation, and that sensory fibres go towards the "motor" region; hence accounting for the sensory aura that sometimes precedes convulsions that are due to disease in this part of the certea. Ross and Victor Horsley, also, have suggested that in the Rolandic area motor and sensory (as regards muscular sense) centres coincide; calling attention to the fact that, in addition to the large pyramidal cells, there are, nearer the surface cells, which seem to be less highly organised than these. But such an idea is at present highly speculative.

X.

SOME OF THE TYPES OF TEETH IN DISEASE.

(A paper read before the Students' Society of the National Dental College.)

By James F. Rymer, M.R.C.S., and L.D.S. Eng.

The main reason why I have chosen this subject for my paper is that our text books and journals do not contain a large amount of information, and this is scattered over a period of 40 years, I thought that by collecting these fragments together they might constitute a homogeneous whole bearing upon the subject. I commence with

GOUTY TEETH.

Before describing these teeth, I will hand round a model of a well-marked gouty case. This patient had tophi of the ears, reedy nails, and a good gouty history. It may be interesting to mention that Dr. Graves first called attention to the ground down condition of the teeth as long back as 1836 in the *Dublin Medical Journal*, and there explained that the grinding is due to an irritable condition of the dental nerves. All of us, I think, will agree that this does not explain the cause. Again, Dr. Horatio Donkin, in the *British Medical Journal* for February 21st, 1880, points out the following case of a family:—the father suffered much with gout; the mother's ancestors were full of gout. This couple had eight children; all of them had their teeth much worn down, and, Dr. Donkin remarks, when asleep the grinding produced an impressive non-harmonious concert. In the Norse type the teeth are, as a rule, solid, blunt, and thick at the edge, due to the wearing down; dark in centre, due in many cases to a formation of secondary dentine; the incisors are more worn than the canines or molars. Gouty teeth have a tendency to work out without caries, from an osteitis extending from the neck along and towards the end of the root. The gums are often retracted, and the mouth offensive, the latter being due to gouty dyspepsia. According to Dr. Milner Fothergill, there is often a well-marked osteal growth along the fang of the canine. A question now arises, What is the cause of the wearing away of tooth substance? Is it some malformation in the enamel and dentine? Or is it due to simple attrition, the result of some reflex irritation, as dyspepsia, &c.? It seems most probable that it is a combination of the two, for many people grind their teeth, yet their teeth do not wear down to the extent found in gouty subjects. Out of a large number of "gouty mouths" that I have examined at "Guy's" about 80 per cent. either had gout or come from a gouty family.

Before leaving the subject of gouty teeth, I would like to mention rather a novel, at the same time an interesting case. A female patient, aged 30, came to the Hospital one Friday, about a month ago, complaining of intense pain (not of a shooting character) in the right upper lateral tooth. Her teeth were distinctly gouty; I examined the tooth carefully, as did also the dental surgeon for the day, but we failed to find any caries or crack. It then occurred to me that it was a manifestation of gout confined to this tooth. I applied (by direction) a strong counter-irritant, chloride of zinc, around the gum and upon the tooth. I saw her a week after, when she said that all pain had disappeared in 24 hours after the application. I may add that the laterals were worn away considerably less than the centrals, and certainly there was no sign of sensitive dentine or pulp exposure. Was this a case of gout? If not, what is the explanation?

STRUMOUS TYPE OF TEETH.

Scrofulous or strumous people often present signs of imperfect nutrition and development, their teeth being large and of chalky appearance, and often have milk-white spots mostly upon the buccal surface. This indicates defective development of the enamel, with less gelatine than normal, and so the enamel is more easily acted upon by exposure to acid secretions, or to other external irritants. As these patients frequently suffer from "strumous dyspepsia," and so an excess of acid fluids in the mouth, it is in those faulty spots that caries usually commence. The patient from which I obtained this model was of very strumous appearance, and although the teeth are not large, the model shows a typical case of strumous caries. It is interesting to note that the jaws are generally large in proportion to the teeth, and so crowding and irregularity is avoided.

PHTHISICAL TYPE OF TEETH.

Here the teeth are small and irregular, the palate is long, the central incisors lean towards each other, producing the "rabbit jaw;" or the teeth may be set at an obtuse angle, forming the "horse jaw." The teeth are very prone to caries, most commonly the upper incisors, especially the laterals (by some this is considered the test tooth for hereditary phthisis). Decay begins at puberty and at the sides: and so differs from strumous teeth both in size and site and decay. Corfe says that decay is due to the imperfect flow of blood in the vessels of the teeth (!).

RICKETY TEETH.

Although there is nothing peculiar in the type of these teeth, yet there is something quite characteristic which has not yet been mentioned in our medical or dental books. It is as follows:—The temporary teeth are

erupted in the normal manner, but at about 2½ to 3 years of age they loosen without any visible inflammation of the gums and drop clean out, the roots presenting no signs of sny absorption. Through the kindness of Mr. Charters Symonds, of "Guy's," I had the opportunity of examining quite twenty-four cases of children suffering from rickets. It was quite an exception to find all the teeth present; in some cases both the upper and lower incisors had loosened and dropped out. This rough model was taken from a baby, æt. 2½.

The mother came to the hospital and asked the reason of the teeth coming out. I examined the patient's tibiæ and found well-marked curves, the lower ends of the radi and ulnæ were enlarged, the anterior fontanelle was also large; and naturally I told the mother that rickets was the cause. She then told me that a year previously the child had been treated at the Middlesex Hospital for rickets. The permanent teeth are often erupted later than usual, and the centrals frequently have two small notches showing lines of development. They are either carious when erupted, or else decay shortly afterwards; hence it is important to recognise rickets by the temporary teeth, for then the parents can be told what condition the permanent will very probably be in. Rickets is most common in the extreme poor or in the later members of large families.

STOMATITIC TYPE.

Under this head one has to jumble together divers diseases, such as scarlet fever, measles, convulsions, jaundice, &c., which all seem to produce the same defects in the teeth. Great interest lies in the permanent teeth, for during the period of the illness there is an arrest in the development of the enamel, and the dentine is seen to be a dirty brown colour. Thus, if a child is ill during the first year, and then recovers, the tip and half the lower surface of the central incisor teeth is devoid of enamel; and if at a year and a half, there will be a ring of exposed dentine near the cervical margin.

MERCURIAL TEETH

are closely allied to the above. Many people are dubious whether it is possible to distinguish a mercurial tooth from one due to stomatitis, but there seems to be one or two points characteristic; generally it is the lower portion of the enamel that is defective, differing from the stomatitic tooth, which may be faultly at any portion of the crown. The surface is seamed and jagged, yellow and irregular in form; the dentine frequently has rings of enamel on its surface, giving it a pitted appearance. In order to distinguish between a congenital and an acquired mercurial tooth, the tip or cutting edge is a sure guide (before the age of 20), for in the former the cutting edge is always devoid of enamel, whilst in the latter the enamel in this situation is often perfect for a distance of one or two lines.

As to the cause. Is this condition due to a simple stomatitis? Or is the pitting, &c., due to the removal of the forming enamel by the absorbing power of the mercury? Certainly many infants have convulsions entirely apart from dental irritation or the popular term "cutting the teeth," for convulsions in infants are due to a variety of causes; but still ignorant mothers blame the poor teeth and administer *ad lib.* "Stedman's Teething Powders" and other quack remedies, with the result that the previously healthy developing enamel is in some way affected by the mercury, either by absorption or by setting up a stomatitis. The six-year-old molars are the test teeth for mercury.

SYPHILITIC TEETH,

or commonly known as "Hutchinson's Teeth," are now to be mentioned. Although by far the most important, they are the most easy to recognise, and are tolerably familiar to us all; therefore only a few words about them will suffice. A very interesting discussion about them will be found in *The Lancet*, vol. 1., 1876, which took place before a dental society, where the discoverer, Mr. Jonathan Hutchinson, boldly defended his pet teeth, in opposition to the opinion expressed by members of the dental profession, who contended that this peculiar form of tooth was independent of syphilis, and when people were known to have been born with the disease, it was a mere fluke if their teeth were altered in form. Happily, now the discoverer has convinced all that syphilitic teeth are always a reliable guide. The chief points are: notching of the two centrals, which are always symmetrical; if the notching is not confined to the centrals, then the cause is most likely to be mercury, &c. The teeth are small, of dirty grey colour, and narrower at the cutting edge than at the neck. Again, on some of the teeth, other than the upper centrals, are to be seen several grooves along the surface, giving rise to the so-called "serrated teeth;" or there is a central projection, "pegtop teeth." The grooves and other characteristic peculiarities begin to get worn down by the age of 20; hence they are far more difficult to diagnose with certainty after that age. The temporary teeth are never affected, but are normal. Why? For the specific inflammation does *not* take place in utero, but calcification does.

There is yet one more rare form of tooth. I allude to "Mercurio-Syphilitic." It is a cross between the mercurial and syphilitic types; by knowing these, it is easy to recognise. I had the opportunity of seeing a good example of this type of tooth at this hospital about a year ago.

I have recently examined a somewhat unique mouth, exhibiting very clearly three distinct forms of teeth—viz., syphilitic, mercurial and rachitic. The patient, a girl æt. 10, was brought to the National Dental Hospital from the "Home for Waifs and Strays." Unfortunately no person appeared to claim the child, and so no history could possibly be obtained.

The patient had only one upper permanent incisor which was peg-shaped, but had a rough irregular cutting edge; the lower incisors were present, but so malformed as to appear as simple rough brown projections through the gums. I may add that the child had a large square head and face, the latter being of a decidedly "earthy" appearance: the elbow joints were much enlarged,

evidently due to some early diseased action, and the child was very short in stature. These and other conditions pointed to congenital syphilis.

Now, in favour of mercury: The four six-year molars presented the typical mecurial appearance which I have elsewhere spoken about. In favour of rickets: All the deciduous set of teeth had disappeared, leaving the gums smooth and healthy, as pointed out in describing rickety teeth. In addition to this, the upper jaw was small, due to arrested development; the lower jaw, although appearing larger, was of normal size. This disproportion between the size of the jaws has a rickety significance.

Lastly, I may add that the recently erupted permanent bicuspids were normal in number and of healthy appearance.

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Green Extracts.

The *London Medical Record* for June is full of interesting matter.

In an article entitled "Adamkiewicz on Multiple Sclerosis" we have some new views as to the nature of lesions of this kind, as opposed to the explanations given by former observers, notably Charcot and Rindfleisch.

It used to be thought that the primary change occurred in the neuroglia, and was of the nature of a chronic, interstitial inflammation, and that owing to the shrinking of this condensed neuroglia there occurred a secondary atrophy of the nerve elements.

Adamkiewicz, it appears, has discovered a new stain called safranin, which is specially suitable for determining the pathological condition of the central nervous system. It not only colours the medulla orange, and the neuroglia violet, but brings out a peculiar element of the medullary sheaths, the chromoleptic substance (as he calls it) which bears a relation to the condition of the nerves.

By means of this reagent it has been shewn that the primary change occurs in nerves (the neuroglia being at first quite healthy), and that it takes the form of decay of the chromoleptic substance of the medulla. In the end the medulla falls out and leaves a gap in the nervous tissue. The neuroglia then begins to change, shrinks and closes these gaps, and then proliferates. Ordinary connective tissue does not appear in sclerotic foci, none but neuroglia elements being formed.

In cases of degeneration secondary to separation of the nerve-elements from their centres of nutrition, the axis-cylinders are diseased before the medullæ of the nerve fibres. In primary degenerations (*e.g.* multiple sclerosis and tabes dorsalis) it is the medullæ which are earliest affected, and in all cases the neuroglia is the last to become involved.

Under the head of Bacteriology there is in the same number a short abstract of Zuckerman's recent paper on the causes of suppuration.

The tendency of the experiments has been to show that suppuration does not occur in the absence of micro-organisms. Chemical irritants in the absence of these organisms are powerless.

In only 4 out of 38 cases of abscess did he fail to find bacteria. In the remaining 34 staphylococci were present in 2·8, and streptococcus pyogenes in 6.

The author made four experiments on himself with streptococcus pyrogenes aureus. In three suppuration resulted, and in the fourth the experiment had to be cut short, by taking measures to disinfect the part, because of the appearance of rather severe symptoms.

In the *Practitioner* there is a contribution entitled the "Physiological effects of Massage," by A. Symons Eccles, M.B., C.M.

The author classifies the manipulations of this treatment under four headings, viz.: rubbing (*effleurage*,) kneading (*pétrissage,)* a process called *massage à friction*, and tapping *(tapotement)*.

Each of these processes has its own distinct uses and effects.

Experiments made (by kneading) on able-bodied males of sedentary habits, resulted in a gain of power varying from five to twenty-nine pounds pressure after massage of the right upper extremities for ten minutes.

The advantages of kneading over exercise, for persons in feeble health, are that it does not produce fatigue, requires no voluntary effort and that the blood is attracted from the internal organs to the suface of the body.

The author, after describing the effects of each individual class of manipulation sums up by giving the results produced by the process as a whole.

The integument becomes softer and more pliable, fitting the subjacent parts more closely—this effect being

particularly noticeable in cachectic individuals. The immediate effect of massage is rather to deaden sensation and produce numbness, but experiment proves that there is a subsequent improvement in the delicacy of perception.

The rapidity of the total circulation, the quantity of blood in the part, and the metabolism of tissue in the part are increased. There is also a rise of temperature in almost all cases.

The respirations are increased in depth and frequency, and the heart's beat is also raised.

In ten cases there was a fall of body weight during the first week, followed by a steady rise, the greatest gain in a course of 28 days being eight pounds naked weight.

The author considers massage of especial value in preventing the deformities produced by anterior cornual negelitis. C. J. W.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

A NEW GERM THEORY.

SIR,—We arrive nearer the truth by looking at a subject from varying points of view. May not some of the relations that "germs" bear to the human body be made clearer by considering what is their rôle in nature?

It is no novel idea, though it does not seem to be generally accepted, that to look upon germs, in a broad sense, as devouring the dead, is more true than to consider them as preying upon the living. Their value in the economy of nature is immense, because their rôle is to destroy the dead—were this not done, for obvious reasons, evolution in the living must come to an end.

To my mind it is a wide truth, holding good with the simple as well as the compound, with the unit as well as the community, that a first essential to life is the removal of the dead; and that thus germs are as essential to the life of higher organisms, as is the function that plants have of generating oxygen, essential to the life of oxygen-demanding animals. Looking on the occurrence of some of the pathogenous bacilli in man in this light, is it not probably more scientific for us to allow that the primary object these germs have in disturbing us, is to live upon dead matter in ourselves, and that it is only secondarily—indirectly—that they cause discomfort—even death—of the living part.

Ex. gr. In anthrax, one of the diseases in which the relationship of the germ has been most studied, the germ lives primarily in the slough—on the slough—and not in the living, healthy body; because if the slough is removed, even though the surrounding tissues already contain the bacilli, the disease may be stopped; for the living healthy body does not support the life of these germs.

Again, tuberculosis. Does not every person inhale the bacillus? Is there then a difference in the bacillus itself that it should act differently upon some people than upon others? or rather, does it not find some people in a different state to others? If so, what is this difference? Is it not that disease in *some form* is already there? And what is disease but the death, the separation, of some part, molecular, or molar, from the vital continuity of the whole?

I do not mean that the bacillus has no effect after it has found a lodgement, but I do mean that it found a lodgement in dead matter already in the body, and not in living, healthy tissue.

Again; do the germs of the several fevers live upon healthy, living tissue, or its normal constituents? If so, in a living, healthy man, after all these fevers, there should still be opportunity for the same "germs" to thrive—unless the theory that they generate a poison to themselves be true, which I do not think will be generally believed in for long. Thus it seems that they (the germs) live upon what does not necessarily exist in a normal, healthy body. Surely this means that they live upon dead matter, or matter which, at the time, is not forming a living part of their host.

From this standpoint, can we not see why experience has taught us (in the dark) that let the germs be so thick and so virulent, let them so compress us on every hand, that it scarcely seems reasonable to expect that any shall escape them, yet our fear need not be so much of the germs' power as of our own weakness. Can we not see why, to defy germs, the best thing is to keep the body quite healthy. And where throughout nature do we find "germs"? In relation with organic, rather than inorganic structure, surely. Amongst the living rather than the dead. Surely amongst disease, destruction and death, rather than where life is strongest. But if the life of germs were best maintained in killing, or feeding upon, living matter, they would not be found thriving most amongst the dead.

I bring forward this view, sir, simply as a suggestion, and would venture to add my belief that it is because medical men have to do with the living body rather than the dead, that this view of the matter is not so readily apparent to them: but that if the phases of decomposition in the dead had been studied side by side with the phenomena of disease in the living, it would have been generally accepted that the place of germs in nature is to destroy the dead, not to prey upon the living; and that the very existence of all other life on the earth depends upon this vast realm of life, whose very existence is almost hidden from us.—I am, sir, yours, etc.,

HAROLD G. DIXON, M.A.

ICE POULTICE.—*Technics* gives the following directions for making an ice poultice. Spread a layer of linseed meal ¾-inch deep on a cloth of proper size, and put pieces of ice the size of a marble on the meal at intervals of an inch; then sprinkle lightly with the meal; cover with a cloth, and turn over the edges, apply the thick surface to the skin. The meal protects the skin, and excludes the air from the ice, thus preventing melting.—*London Medical Record.*

Passim.

WE have good news for *all* our readers this week; and news which demands the gratitude of Guy's men towards those by whom the favours we announce have been conferred.

We have received the kind permission of Mrs. Moxon, and of Mrs. Carrington (the mother of the late Dr. Carrington), for the publication of some valuable material in their respective possession.

From the first we have obtained some unpublished writings of the late Dr. Moxon, which will be eagerly read by us all; and the second has consented to the appearance of Dr. Carrington's valuable "Pathological Notes," which have already proved such a boon to many a bewildered candidate, who, but for them, had been doomed to be whirled hither and thither on the conflicting eddies of controversial pathology.

In both cases the permission was freely and graciously given, with an intimation that to each it was the source of great happiness to be able to do anything that would please Guy's Students.

Mrs. Carrington states that it was her late son's intention to hand over his notes for publication in these pages, so there is a certain special fitness in our having asked for them now that he is no more.

IN the SOUTH AFRICAN MEDICAL JOURNAL, "A London Undergraduate" writes to the following effect:—"'*Palmam qui meruit ferat*' is an old adage, "Honour where honour is due" is another. But why are we constantly being treated to pretty little excerpts from Edinburgh University class lists (I refer more particularly to our Colonial lay journals)? Does London produce no good men? Let us see! The last examination for the Indian Medical Service was held on Feb. 14th last. Dr. C. H. L. Meyer (Gold Medallist Lond. Univ.) headed the list, and Mr. L. F. Childse came third. Both are Cape men. The former studied at Guy's, and the latter at King's."

Our contemporary, or rather his correspondent, is not quite accurate here. Both the gentlemen referred to are Guy's men. The name of the second is Childe, not Childse as quoted.

It is pleasant to see the prowess of our own champions quoted in these far-away climes.

One of the medical journals has a tale of how a cowboy has lately been shot in the Far West, because he hurt someone else's feelings by calling him an et-cætera-ed *Microbe*. And in the face of this there are some of us who complain that the general public takes no interest in the march of science.

NOTICE TO SUBSCRIBERS.—Arrangements have been made by which half-yearly and yearly subscriptions for the GAZETTE, dating from the 1st of July to the end of the year, and to July, 1888, respectively, may be paid now to Mr. Wells, at the Medical School Office.

Annual Subscription	...	6/6 (or 7/6 post free)
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ON SPASMODIC LOSS OF CEREBRAL CONTROL.

By LEONARD BRADDON, F.R.C.S.

The title of this article expresses merely the views, with which others may or may not agree, of the writer, as to the nature of the nervous disorders of which the case to be narrated affords an example.

Case.—Mrs. R, a cheerful old lady, æt. 73; but exhibiting in the wasting of bones and muscles, the alteration of hips, jaws and alveoli, a physical aspect of age which one would estimate more nearly at 85. She had enjoyed good health, but had always been of a very active habit, until eight years ago, from which time dates a condition that has incapacitated her from business, and exertion, prostrated and destroyed her health and energy, and still, in the "fits" to which she is subject, exhibits relics of the power that shattered it, over the ruins of her nervous system.

She has, since an attack last spring, been confined to bed; unable until recently to make any physical exertion; unable to eat any save the smallest quantities of a carefully and capriciously selected dietary. At no time for ten years has she been able to take, in any guise, or quantity, alcohol; the sequelæ upon which were

invariably giddiness, violent headache, often delirium, loss of consciousness, and the other components of the attacks under discussion. The pulse is small, slow, ill-filled, sometimes irregular, average 60; the respiration a corresponding effort, amounting on slight exertion to moderate dyspnœa; the temperature generally slightly sub-normal; the urine small in quantity (except as considered relatively to the ingesta), strongly acid; there is always more or less aching in the lumbar regions; sometimes pain after micturition, which she refers to the neck of the bladder; and she has pruvitus vuluæ, occasionally severe, no sugar or albumen; the bowels open about every three days, with difficulty. Muscular weakening reduces her voice to a whisper; mentally she is clear, intelligent and cheerful. Her diet had on an average consisted of a small piece of toast, about 1oz. of some kind of meat (only sucked), and a few ounces of broth or other fluid. Larger quantities would make her sick, and aggravate a continual gnawing pain from which she suffers over the stomach, varying in position, often extending "through to the shoulder blades;" and distinct from the colicky pains of flatulence with which she is also troubled. So far, diagnostically, atonic dyspepsia and starvation. A course of hot water sipping, four or five ounces as many times a day, with a little carminative now and then enabled her in a few days to eat more, freed her from constipation, flatulence, and renal lumbago; considerably relieved her dyspepsia and improved on her starvation, so that she has since been able to get up out of bed for an hour or two into a chair. Then a mild repetition of the kind of attack which had sent her to bed returned several times. Their former history was this: Engaged as the wife of a publican in much constant business, her husband dying, and failing finances, doubled her share of activity in affairs. Always active, punctilious, and methodical, her activity became ceaseless, her anxiety perpetual, and her method became madness. In a condition of undoubted insanity she was removed from distractions into quietude, under the influence of which she partially recovered, but has always been liable upon excitement and other cause to relapses of the mental disorder; during which she would lose entire control of thought and speech, and surroundings, babbling business matters, giving orders, and walking excitedly to and fro. Notwithstanding she states her memory always continued to register what was passing round her, and she was conscious of her deranged condition; being able after all these attacks, as during her primary long mental illness, to recall all that had happened to and around her. With the last recurrence was associated some severer lesion so that she fell down speechless and unconscious, and had to be carried to bed utterly helpless. Yet this seems not to have been a destructive focal lesion, such as hœmorrhage, as she recovered, in a week or two, completely equal, but very diminished power over all her functions. The attack which I witnessed happened when she was sitting up in a chair. At this time she was a little excited, the exertion generally reacting upon her so; she had a flush upon the face, and a quick and fairly full pulse (80) occasionally intermitting. She talked with more voice, more quickly and more excitedly, and recognised that an attack was impending. She exhibits generally in a mild degree the rhythmic nodding of old age—a similar period often extends to her speech and finger movements. She felt a fullness and throbbing in the head, and breathed frequently (35) and with evident exertion, using the sterno-mastoids a good deal. The rhythmic tremor of her hands and head became gradually stronger, and the period of greater amplitude as her excitement increased, in spite of strong efforts on her part to control them; the breathing became more hurried, and the pulse quicker and more frequent; as the nodding became quite violent she lost restraint over the movements, broke forth into rapid half finished incoherent sentences about orders and business arrangements, cast her hands up and down, stared with a totally different expression of eyes at her surroundings without apparently recognising them, and changed their direction in rapid snatches hither and thither, strove to rise from her chair, grew deeply flushed in the face, increased the frequency of all her muscular movements until they merged into a general tonic spasm, when her face paling

a little and her pupils dilating she gave a deep sigh, and letting the head fall forward as if asleep, the eyes closed, and her convulsive movements of head and irregular respiration ceased instantaneously together. The whole attack from the time when her control seemed to be lost till now was 73 seconds; for another minute or so she dozed, the almost imperceptible respiratory movements gradually enlarging and the pulse diminishing to their usual volume. She then felt very exhausted, but said that except at the very height of the paroxysm she had never lost consciousness, and proved it by recapitulating details.

During the paroxysm a slight inhalation of Amyl. Nitrite was tried; this, although she could not speak, she waved away: it evidently increased the headache, and did not relieve the other symptoms. The pain in the head and giddiness she considered the worst evil in the attacks, and they were severe.

Now it seems to me that this condition was not, like epilepsy, a nerve-storm, an irritation arising like a cloud and overspreading and inhibiting the rest of the brain operations—primarily itself due to a loss of inhibition; as a result of which certain of the stronger continual brain functions break forth uncontrolled, and influencing other (motor) nuclei, either by irradiation or the similar sweeping away of their control, a negative, not a positive condition, so to speak. The History too—diligence and love of work, activity, constant business, over punctiliousness, and anxiety, finally ceaseless implication in unnecessarily magnified importances of labour, the usefulness of habit changing into the servitude of disease; this means the gradual establishment of one function to the obliteration of others, the growth of automatism at the expense of general cerebral control. So that when for any cause the total of nerve power should become lowered by an extra call upon it, or sink from physical inadequacy below par, the inhibition of the highest centres or of the will fails first where it has so long been weakest, and failing most also there, by the time that general control over the local centres has sunk below a certain level, the self assertive centre has broken completely beyond bounds, and babbles in delirium, or rages in spasmodic disorder. The unreasonableness of habit has become the madness of disease.

Moreover the shaking palsy, the speech-faltering, the head-nodding of old age, exactly bear this explanation.

The ingravescence of years brings about loss of vital power; and, as affecting the brain, this may mean an equal fall of potential and actual energy throughout every part of it, so that all the functions fail gradually, and equally, those lasting longest which were originally most powerfully endowed; no convulsive disorders not predominating, if even present, because there is no excess in any one centre to stimulate others, by irradiation, and there is less sensitiveness everywhere to action because all are more enfeebled; or it may mean a failure of higher functions first, the exquisite inhibition actions dissolving everywhere equally, so that, exposed to the stimulus of some neighbouring more active, acquired or originally automatic centre, groups of nuclei run riot in their functions, when free from the brake of general cerebral control. In this way the respiratory movement spreads to the muscles that are otherwise only used as accessories when controlled, and nodding of old age becomes an example of irradiation, from cerebral decay.

The increased violence of this nutation, together with the exaggerated respiration and general spasm, finally merging into failure of coherence in speech, sight, and consciousness, and the outburst of the strong centre of habit-disease, as they occurred in the attack described, all vividly impress one with the idea of functions rising up one after another in action, unconcealed, untramelled by control, as the harp strings vibrate when the hand that has held them asunder is let go.

What the pathological change determining this transient wave of nerve-weakening, which destroys restraint, may be, it is not easy to determine. Whether the more rapid circulation is the cause or part of the disturbance is equally a question of choice. That there is local brain congestion and not contraction of vessels appears probable from the symptoms, and the fact that Amyl. Nitrite was an aggravation. That the condition was not one of generally raised blood

tension seems likely from the fact that this drug did no good. Yet Alcohol in the smallest quantities would bring the symptoms on. Was this direct nerve-poisoning only, or partly a mental reflex from old association? She had never been a drinker or able to tolerate anything but beer at any time.

My own conclusion was, that however brought about, the cardinal condition was one of direct simple nerve-exhaustion. Acting on this belief I gave *strychnine*, and she has improved continuously ever since: a result that has partly led me to publish these few remarks, in the hope that some of your readers may not regard as either hopeless or utterly unworthy of accurate investigation these cases—neglected preludes to the grave—in the almost deserted village of Senile Pathology.

Sport.

ATHLETIC SPORTS.

Our annual sports were held at Lillie Bridge on Thursday, June 9th, and were favoured with lovely weather, and a larger company than usual including a goodly number of ladies. The staff too showed up in great force.

As usual, the programme consisted of thirteen events, viz.: 100 Yards, Putting the Shot, One Mile, 120 Yards Hurdles, 220 Yards, Long and High Jumps, Half-mile, 440 Yards, 600 Yards, Three Miles, 300 Yards Consolation, and an open "Quarter." The "hero of the day" on this occasion proved to be A. T. Harrison, who was successful in the Half, Mile, and 600 Yards, starting from the post of honour in each instance, and winning with the most consummate ease. He has a taking style, and should do something for us in the United Hospital Sports on July 6th. During the afternoon the proceedings were enlivened by a capital selection of music by Wellington's Light Cavalry Band, under the leadership of Mr. J. R. Wellington. The arrangements were admirably carried out by the energetic hon. secretaries, Messrs. C. J. Prime and A. L. D. Meares, whilst the committee officiated in turn at the tape. Jack White was starter, and Nat Perry timekeeper. Details:

100 Yards Handicap.—First heat: W. G. Beyts, 4 yards start, 1; G. Sichel, 5, 2; G. H. Burnett, 5, 0; S. S. Wallis, 6, 0; W. G. Mitchell, 4, 0; won a good race by half a yard; a yard between second and third; 10¾sec. Second heat: J. H. Bryant, 5, 1; N. Instone, 6, 2; C. J. Prime, scratch, 3; H. Wilks, 6, 0; the scratch man could never get within hail of the leaders, and Bryant won somewhat easily by a yard; a yard and a half separating the others. Final heat: J. H. Bryant, 1; G. Sichel, 2; N. Instone, 3; W. G. Beyts, 0; Bryant took the lead at the half-distance, and won easily by a yard; a foot dividing second and third; Beyts close up; time, 10 4-5th sec.

Putting the Shot—R. M. H. Randell, owes 6in, 32ft ¾in, 1; W. G. Mitchell, owes 20in, 31ft 2in, 2; W. D. Mc Donald, scratch, 29ft 9½in, 3; S. Wallis, scratch, 0; A. Allthorp, scratch, 0; H. B. Marriot, scratch, 0.

One Mile Handicap.—A. T. Harrison, scratch, 1; C. E. Salter, 70 yards start, 2; E. G. March, 50, 0; A. Allport, 80, 0; H. Whyte, 75, 0; the scratch man, who ran in a very taking style, was right amongst his men at the end of the half-mile, and was then content to lay a couple of yards in the rear of the leader, Salter; commencing the last lap, however, he came away as he liked, and although Salter stuck to him in the most plucky fashion for a little time, Harrison simply romped away at the finish, and ultimately won by fifty yards; time, first lap, 1min 4sec; half-mile, 2min. 35sec; three-quarters, 3min 46sec; and mile, 4min 54 2-thsec.

120 Yards Hurdle Race, ten flights.—W. G. Mitchell, owes 6 yards, 1; S. S. Wallis, scratch, 2; H. Bryant, 2, 3: E. M. Dobinson, scratch, 0; Mitchell assumed the lead at the sixth hurdle, and won easily by two yards; a yard and a half between second and third; time, 19 3-5th sec.

220 Yards Handicap.—G. Sichel, 10 yards start, 1; C. J. Prime, scratch, 2; G. H. Burnett, 10, 3; V. Barr, 10, 0; P. Paget. 10, 0; won after a good race by a yard, half a yard separating second and third.

Long Jump.—S. S. Wallis, owes 5in, 17ft, 4in, 1; C. J. Prime, owes 18in, 17ft 11½in, 2; E. J. Budge, scratch, 15ft 9½in, 3.

Half-mile Handicap.—A. T. Harrison, scratch, 1; P. Purnell, 30 yards start, 2; Jenkins, 40, 0; H. B. Marriott, 50, 0; the limit man led off at his best pace, and held his own until the completion of the first quarter, when he retired, leaving Purnell with the lead, and Harrison third; thence the scratch man gradually closed up, and collaring Purnell forty yards from home, won easily by three yards; time, 2min 10½sec. Jenkins did not fiinish.

High Jump.—W. G. Mitchell, scratch, 5ft ½in, †; W. M'Donald, 5ft ½in †; C. J. Prime, owes 1in, 0; M. Dobinson, owes 1in, 0; dead heat.

440 Yards Handicap.—N. Instone, 25 yards start, 1; G. Sichel, 25, 2; P. Purnell, 20, 3; H. J. Holman, 15, 0; Jenkins, 10, 0; C. J. Prime, scratch, 0; Instone soon left his co-starter, and holding his own throughout eventually won, "all out," by four yards; splendid race between second and third, Sichel securing the verdict by half a yard only, after a desperate finish; time 54 3-5 sec.

600 Yards Handicap (Guy's Hospital A.C.).—A. T. Harrison, scratch, 1; J. H. Bryant, 25 yards start, 2; F. J. Nisbet, 40, 3; R. M. Randell, 15, 0; Jenkins, 30, 0; H. B. Marriott, 40, 0; another easy matter for Harrison, this making his third win in succession; the winner made his effort rounding the orchard, and taking the lead at the top of the straight went on and won easing up six yards; eight between second and third; time, 1min 21 2-5th sec.

Three Miles Handicap.—E. J. Eastment, 100 yards start, 1; P. Purnell, 100, 2; H. B. Marriott, 200, 3; R. M. Randell, 50, 0; F. J. Nisbet, 100, 0; A. Allport, 200, 0; Marriott showed the way for the first seven laps,

when Eastment left Purnell and closed with the leader, the order then being Allport, Eastment, Marriott and Purnell; in the ninth circuit the last named took second place, and these positions remained unchanged until two miles and a half had been completed, at which stage Eastment got tired of jogging along, and going right away without an effort eventually sprinted home a winner by one hundred and thirty yards, whilst Purnell finished three hundred yards in front of Marriott; time, two miles, 12min 10sec; three miles, 18min 27 2-5th sec.

440 Yards Open Handicap.—R. G. S. Whitley, South London H., 16 yards start, 1; J. J. Cooper, South London H., 18, 2; L. H. Leston, South London H., 15, 3; R. S. Dwyer, South London H., scratch, 4; E. Cockle, Spartan H., 10, 0; M. Neck, Finchley H., 6, 0; E. O. Cheshire, South London H.. 35, 0; J. Parsons, London A.C., 8, 0; A. J. Fowden, South London H., 32, 0; Parsons ran very prominently for three hundred yards, but thence he tired rapidly, and the nine were all of a heap turning into the straight; a grand race ensued for the remainder of the distance, and after a ding-dong finish Whitley stayed the longer, and won by half a yard; a foot divided second and third, and the same third and fourth. Dwyer would have very nearly got home but could not get through; time, 54sec.

300 Yards Consolation Race.—H. J. Holman won easily in 35⅘sec.

At the conclusion of the sports the prizes were presented by Mrs. Hale-White.

Bartholomew's are the present holders of the Inter-hospital Challenge Shield, and there is every probability of their winning it again this year. Certainly they have not much to fear from us. We shall be represented on July 6th by—

100 Yards.—C. J. Prime, J. H. Bryant.

220 Yards.—C. J. Prime, G. Sichel.

Shot.—W. G. Mitchell, W. D. M'Donald.

Mile.—A. T. Harrison, C. E. Salter.

Hurdles.—W. G. Mitchell, S. S. Wallis.

Long Jump.—C. J. Prime, W. G. Mitchell or S. S. Wallis.

Half-mile.—A. T. Harrison, H. J. Holman.

High Jump.—W. G. Mitchell, W. D. M'Donald.

440 Yards.—C. J. Prime, N. Instone.

Three Miles.—H. J. Eastment, A. T. Harrison.

Hammer.—W. G. Mitchell, W. D. M'Donald.

CRICKET.

GUY'S v. BICKLEY PARK.—At Bickley, on Wednesday, June 8th. We made 156, Scott and Bolus playing very well for 60 and 39 respectively. Barlow and D. D. Pontifex went in for Bickley, and put the 100 up before the former was caught for 40. Pontifex was bowled when he had made 85, and then A. T. Thornton played exceedingly carefully till the call of time, when his score was 60, not out—total, 261 for 9 wickets.

GUY'S v. BARTHOLOMEW'S—2nd Round of Cup Ties.—Played on Friday, June 11th, at Kensington Park ground. We went in first and lost 3 wickets (Fripp, Bolus and W. G. Mitchell) for 13. Then Scott and Colclough made a long stand, the latter being bowled for 27 and the former for 102—a really grand and faultless innings. Featherstone later on ran up a useful 20, and Roberts played very carefully for 47, the innings closing for 244. Against this Bartholomew's could only total 24, W. G. Mitchell and C. D. Rygate bowling splendidly. Following on, our change bowlers were given a trial and captured 4 good wickets for 30 before stumps were drawn.

GUY'S v. BECKENHAM.—At Beckenham, on Saturday, June 11th. Scott 30 and Colclough 85, put up 100 for the first wicket, but we were all out for 197. Our opponents, after despatching four of our men by really grand pieces of fielding, took full advantage of our slackness in the field, and hit about to the tune of 230 for 2 wickets, Guthrie and P. D. Chater each reaching the century after being missed before they had got set.

GUY'S v. UNITED HOSPITALS.—Played at Richmond on Wednesday, June 15, and won after a close game by us. Our opponents went in first and made 122. We quickly lost 5 wickets, but then E. J. Mitchell 58 and Featherstone 38 pulled the match out of the fire, and brought the total up to 137.

GUY'S II. v. DULWICH COLLEGE II.—On Wednesday, June 8th, at Dulwich. Resulted in a tie, both teams scoring 98. For us B. Hilder made 29 and H. B. Rygate 13, and Soper took 6 wickets.

GUY'S II. v. FOREST HILL SCHOOL II.—Played at Forest Hill on Wednesday, June 15, and resulted in a defeat for us by 19 runs. The School made 76 and 62, Wilks with 7 and 6 wickets being very destructive with the ball. Our first innings only realised 29, but at the second attempt H. Pearce, G. M. Pratt, W. K. Steele, and J. S. Jackson batted well, and the total reached 90.

The Cup ties are all over now except the final, in which we meet London on Monday and Tuesday, July 4th and 5th, on the Kensington Park ground, Wormwood Scrubbs. London are undoubtedly a very strong team for a hospital, and were the match confined to one day it would be rather a toss up who won; but if we have time to play the match out I feel little doubt that ours will prove to be the better team.

ROWING.

The interhospital fours began on Friday, June 17th. Course, Putney to Hammersmith. In the first heat George's beat King's by about two lengths. In the second Bartholomew's passed the post about two lengths ahead of London, who in turn were several lengths in front of Thomas's. In the third heat Middlesex (the holders of the Cup) won pretty much as they pleased from our men, who, though they did their utmost, were evidently suffering from lack of training. The general impression seems to be that Middlesex will again win the Cup. The final comes off on Friday, 24th.

Guy's Hospital Gazette,

JULY 9, 1887.

PALPITATIONS.

By palpitation we generally understand cardiac pulsation of such abnormal strength as to distress the patient. We are familiar with palpitation as the prominent symptom of Graves' disease. We find it at times in chlorosis. It sometimes follows excess in tea or tobacco. It sometimes occurs as a consequence of shock, or of unusual muscular effort on the part of persons unfitted by age or training for violent exertion, and we sometimes meet with it in association with undoubted valvular disease.

In the patients here referred to, the cardiac origin of the palpitations complained of, and the fact of abnormal vigour in the heart's pulsations may be established by auscultation and by touch, or often by sight of the chest in the cardiac area and epigastrium, and by the physician as well as by the patient.

But in many (perhaps the larger number) of those who complain of palpitation, the most careful observation, even at the moment when the symptom is complained of, shews no trace of any abnormality in the heart's action.

For example: a widow lady, aged 40, whose general health was excellent, and whose only ailment was occasional indigestion, caught the measles. The rash had come out; there was the usual cough and coryza, the temperature was 104·2 and the pulse 125. There was the usual malaise of fever, but this was insignificant by comparison with the violent palpitation of which the patient complained. All night long the patient sat up, unable to lie down, owing to the increase in the discomfort which followed every attempt to do so. Next day the temperature began to fall, but all that day and night the palpitation was no better, and the next day, when the pulse was only 80, she said that her heart was still going "like a steam hammer." Meanwhile, examination several times repeated, showed no sign of abnormal violence of cardiac pulsation. The finger at the wrist, on the carotids, or over the apex, showed nothing that could be called vigorous pulsation, and the results of auscultation and percussion were negative as to any abnormality in the situation of cardiac dulness, or of heart sounds or of apex beat. Both heart sounds were clear.

For a second example, I will offer personal experience, and I think some of my readers may be able to verify in their own histories the following observations. I have occasionally gone to bed after a late but hearty supper (perhaps of pickled salmon and lobster salad), and after having been but a short time asleep have dreamed that I was falling over a precipice, or being shot, or in some other way coming to a bad end.

Awaking with a start, I have felt as though my heart were beating with quite unusual violence and rapidity, and such I had always supposed to be the case, till one day I had the curiosity to notice my pulse and apex beat, when I immediately discovered that, in spite of my sensations, all was going on with its usual regularity and sobriety.

Now what account can be given of these cases in which there is no objective evidence of abnormal violence or rapidity of cardiac pulsation? Are the pulsations cardiac at all? Some have attributed palpitations without perceptible cardiac disturbance to rhythmical contractions of the diaphragm. Dr. Richardson, writing in his "Æsclepiad"* (for May), speaks of "cardiac" and "extra-cardiac" palpitations, and proposes "some disturbance of the neuro-vascular mechanism" of the cœliac axis vessels as a more probable hypothesis.

An ingenious lady of my acquaintance, who has noticed the fact that, in her own case, the site of the palpitation seems to be rather epigastric than cardiac, suggests rhythmical contractions of the stomach itself as the source of the sensation. This view, I must confess, seems to me to be quite as likely as the diaphragmatic hypothesis, and much more likely than Dr. Richardson's Cœliac Axis speculation. But when once we allow ourselves to frame imaginary

* Dr. Richardson describes typical cases, and gives sphygmographic tracings illustrating the independence of the pulsation felt by the patient of the existing true pulse.

ways by which a feeling of pulsation *might* arise it is easy to think we have explained the whole matter. In reality, further observations are wanting, and a true and complete theory of palpitations cannot as yet be said to exist. Will any reader of the Guy's Gazette supply the needful facts?

R. J. RYLE.

NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

I. TUBERCLE.

Definition by Ziegler.

"Non vascular cellular growth, which never exceeds a certain size (millet seed), and which at some stages of its development undergoes caseation."

N.B.—It is quite true that large caseous tubercular masses are met with, but these are produced by the aggregation of the smaller masses.

Tubercle belongs to a group of Pathological results which are known as Granulomata.

These are i. Tubercle.
ii. Gumma.
iii. Lupus Tubercle.
iv. Leprosy.
v. Actinomycosis.

It consists of a small round nodule which contains the following elements:—

Anatomical Structure of Tubercle.

In the centre there is often a blood vessel, but this is not newly formed; the tubercle grows frequently round a pre-existent vessel.

It consists of a small round nodule which contains the following elements:—

1. At the periphery there are *connective tissue cells*, the nuclei of which are undergoing proliferation.

2. The main substance of the tubercle consists of *nucleated cells*, undistinguishable from leucocytes.

3. At the centre these cells will be found to have undergone *fatty degeneration*, some will be small and angular, but at the extreme centre they will be broken down into a structureless débris.

4. Large *cells resembling epithelium* with large nuclei will be met with.

5. *Giant cells.* These are masses of protoplasm from 10—40 times the size of white-blood corpuscles. They contain many nuclei; the periphery, according to Hamilton, is of firmer consistence than the centre and gives off delicate threads of connective tissue in the meshes of which the above-described cells are contained.

These giant cells are not peculiar to tubercle; they are found in granulation tissue and in sarcomata; probably the best specimens are met with in myeloid sarcomata.

6. *Struma.* Many observers describe a struma for tubercle exactly resembling connective tissue of adenoid tissue, *i.e.*, a struma consisting of delicate fibres at the point of intersection of which are found nuclei.

N.B.—The presence of this is denied by others (Cornil and Ranvier), and the appearances are said to be due to changes produced by hardening re-agents. The importance of this point is that it makes the structure of tubercle identical with that of adenoid tissue, and raises the question whether tubercle is not a lymphomatous growth.

Finally—

It is now stated, and largely believed, that the essential element of tubercle is the *bacillus tuberculosis*.

The Bacillus Tuberculosis is a rod-shaped body found in the cells, and mainly in the giant cells, but sometimes externally, scattered or sometimes clustered; found chiefly in recent tubercles, but sometimes in old ones.

N.B.—Some authorities have found this Bacillus in museum-specimens of supra-renal capsules put up for Addison's disease.

Length about one quarter diameter of a red blood capsule.

This Bacillus produces spaces in its interior, it can be cultivated in ox-serum at a temperature of 86°—105·8° F. It will not grow well in parts freely movable and only grows very slowly.

Methods of Staining (*Vide British Medical Journal*, October 14th, 1882.

a. Stain deeply with magenta.

b. Wash with 2 per cent. nitric acid until all color disappears.

c. Stain with aniline blue and mount in balsam.

In ward-work Dr. Heneage Gibbes' double stain is used, and the specimen washed with alcohol (methylated) and dried and mounted in balsam.

Origin of Giant Cells.

a. By overgrowth of a single cell (Hamilton).

b. By aggregation of numerous cells.

c. By coalescence of lencocytes within capillaries.

d. By buds of protoplasm from the walls of capillaries, which should normally form fresh capillaries.

Forms of Tubercle.

1. Grey miliary tubercle: the previous description applies to this form.

2. Yellow tubercle: yellow caseous masses of variable size, softening and breaking down in the centre, and due to fatty degeneration of the grey tubercle.

3. Another form in which the grey tubercle, instead of softening, becomes of cartilaginous hardness, and undergoes a fibroid change; further, it becomes pigmented.

1. Is it a new growth?

2. Is it a product of inflammation?

3. Is it a product of infection?

4. Is it due to a specific cause?

Taking these points separately:—

1. *a.* It has the structure of lymphatic tissue, unless Cornil and Ranvier are correct in denying the presence of stroma.

b. It especially affects lymphoid structures: *e.g.*, solitary follicles, spleen, Peyer's patches. Lymphatic glands. Dr. Klein has shown that lymphatic tissue is met with in the lung at the point at which the bronchioles expand into air cells. Now this is just the spot where tubercle of lung begins in phthisis.

c. It behaves exactly like a malignant lymphoma in its tendency to become generalised: *i.e.*, a chronic primary tubercular deposit may at any time set up secondary deposits.

But, although the above is undoubtedly true, it must be admitted that tubercle occurs independently of lymphoid tissue: *e.g.*, in liver and connective tissue of organs generally.

Is it a product of Inflammation.

First we must take the state of the lungs, and if we determine the nature of tubercle there, the same will apply throughout the body.

Virchow and Niemeyer say that all tubercle is inflammatory, and that the caseous deposits met with in phthisis are really pneumonic products which have undergone fatty degeneration and have broken down; and, further, if grey miliary tubercle is found in connection with such caseous products, it is secondary to it, *vide* inoculation experiments.

In favour of this view we have:

a. In ordinary phthisis the caseous products consist of degenerated epithelium, and the structure of tubercle as given above is not to be made out. It may be very well true that in these cases the tubercle structure is destroyed as rapidly as it is formed; certainly if not found in the lung, it is frequently found in other organs, *e.g.* intestinal canal, glands, spleen, &c.

b. Very rarely we find caseous degeneration of the lung limited to one side.

Against this view we will commence by taking a case of tuberculosis of the lung and compare the behaviour of phthisis with it. Everyone admits that acute miliary tuberculosis is *the type* of tubercular disease, so that if we take this as our type we can compare the tuberculosis of phthisis with it.

Acute Miliary Tuberculosis has the following characteristics:—

a. It consists in the scattering, more or less closely, throughout the lung of grey miliary tubercles as described above.

b. Tubercles at the upper part of the lung are always older than those at the lower part, are frequently found yellow and caseous, and softening in the centre.

c. There is a wide production of miliary tubercles throughout the body.

Against the inflammatory nature we have the facts that:

1. Pneumonia is a disease at the base, and phthisis at the apex, and so far resembling miliary tuberculosis.

2. Acute pneumonia does not caseate or break down into cavities.

3. In phthisis, if we do not find the tubercular growth in the lung, we shall in some other organ.

But it must be admitted that even in acute miliary tuberculosis there is much pneumonia, and this pneumonia behaves in exactly the same way as the nodules having a typical structure of tubercle, *i.e.* in caseating, breaking down, and forming cavities; further, secondary nodules having exactly the same structure as those in the alveoli of the lungs have been found in the liver. Therefore it seems fair to describe the pneumonia products as "tubercle" equally with that possessing the typical structure. If we do not do so we exclude miliary tuberculosis, a large number of cases in which the products are entirely epithelial, and most cases of phthisis, and yet these cases behave in the following particulars as acute miliary tuberculosis.

a. In commencing at the apex.

b. In caseating and crepitating.

c. In being accompanied by undoubted miliary tubercles in other organs.

In fact, we may probably say, that there is no anatomical structure limited to tubercle as described by Fagge. "That tubercle is due to an irritant of small size and low intensity; that if the irritant lodges in the alveolus of a lung, the products are epithelial; that if it lodges in connective tissue, the products consist of granulation tissue; so that there is nothing specific in the anatomical character, but there is in the irritant cause." After the bacillus was discovered, Fagge regarded this as the irritant of low intensity.

3. *Inoculation experiments*, Villemin Cohnheim, Wilson Fox introduced pieces of caseous matter beneath skin or peritoneal cavity of animals. Result was:—

a. Nodule at point of inoculation.

b. Secondary nodules exactly resembling miliary tubercle in lungs, liver, spleen, and serous membranes.

But they soon found that caseous material was not essential, that pieces of growth and putrid muscle or even setons would produce the same effect. In other words, that any irritant might set up tuberculosis. From this a theory of tuberculosis was deduced; that the initial stage of phthisis or tubercular ulceration was a common catarrh, that this led to swelling and caseation of the neighbouring glands and that these underwent caseation, and the caseous products set up tuberculosis.

Against this view it is certain—

1. That in the human subject dried up abscesses and caseous growths will not set up tuberculosis.

2. One observer, Wilson Fox, has admitted that he did not take care to isolate the animals (guinea pigs), experimented upon, from those undoubtedly tubercular, and here, of course, would be a probable source of infection by the bacilli.

If a small nodule of caseous material is placed in the outer chamber of the eye of a rabbit, it at first disappears, and three weeks after an eruption of miliary tubercle takes place on the iris (Cohnheim).

Tubercle bacillus. This has already been described, but some further facts are important.

1. It can be cultivated in ox-serum at a temperature of 86°—105·8° F.

2. Such cultivations may be injected into animals, and will set up acute miliary tuberculosis.

3. There is probably some tissue proclivity or general predisposition necessary for their growth.

Some such reason as this seems necessary to account for the exemption to contagion; then again, when tubercle is hereditary in a family, it often does not break out for many years.

The above suggestions will explain this, probably it does no harm until the tissue is in some way injured.

Menthol in Urticaria and Pruritus.—No remedy affords so complete or instantaneous relief as a solution of menthol (gr. 2 to gr. 10 in an ounce of water), not only is the itching relieved but a cure seems to be effected.—*Amer. Journal of Pharmacy.*

CLINICAL LECTURE

By DR. PITT,

On a Case of Left Hemiplegia followed by right sided Convulsions, occurring in a young woman during Pregnancy.

The patient, a girl æt. 19, was well until 3 weeks after Christmas. One morning she fell off her chair, remained unconscious for a few minutes and on recovering was found to have facial paralysis, on which side is uncertain; but apparently the left.

On April 14th she again had a seizure, in which she fell down, her face became "crooked" and she was unconscious for a quarter of an hour. She was brought up to the hospital and on admission had left hemiplegia and said she felt as if drunk, but was perfectly sensible and described her attack.

The plantar reflexes and kneetaps were well marked on both sides. The cardiac impulse was normal, the first sound was accentuated and followed by a short whiff. While she was under examination she had a seizure commencing with tonic spasm of the right side of her body, the left side remaining unaffeeted, these soon passed into clonic spasms with spasm of eyes and head to the right, the pupils were dilated and insensitive to light. She bit her tongue, was quite unconscious and livid, and passed her urine and motions involuntarily. She remained in a state of stupor for over 4 days, a rare event in cases that recover.

The optic discs were normal. The temperature was raised for a few days. Her intelligence gradually improved but the incontinence occured occasionally for some weeks. The face and leg gradually recovered, but the arm remained absolutely powerless except for imperfect movements at shoulder and elbow. There was slight early rigidity for 4 days and late rigidity came on after 4 weeks. The paralysed arm (as often happens) could be moved if she yawned or used her right hand. She was 5 months pregnant. The apex beat of the heart gradually moved out to the nipple line and a presystolic bruit developed together with a soft blowing systolic bruit.

It used to be stated that with cerebral hæmorrhage the attack came on abruptly and caused sudden death. Dr. Pitt explained that this is a fallacy, usually such cases are cardiac disease or ruptured aneurism, and that cerebral hæmorrhage is rarely fatal within 24 hours except it be meningeal or pontic, which may cause death in a few hours.

It is more usual for the patient to feel stupid or faint and rapidly lose power, rather than to be suddenly struck down. Dr. Pitt referred to some cases in which patients had watched their gradual loss of power before becoming unconscious; coma is only profound when the hæmorrhage is large, multiple or pontic.

Dr. Pitt pointed out that the word apoplexy as originally used (signifying a stroke) included all causes of sudden death, as for instance, aortic disease, but that the word is now employed to designate cases of coma produced by local disturbance of the circulation of the brain.

The most frequent causes of Coma may be classified thus:—

(*a*) Cerebral hœmorrhage.
Embolism.
Thrombosis (usually syphilitic sometimes atheromatous.)

(*b*) Injuries of brain.
Abscess ,,
Tumors ,,
Meningitis ,,

(*c*) Poisoning by Opium, Alcohol, Prussic Acid, &c.
Uræmia.
Epilepsy.
Chloroform and other narcosis.

Coma may be defined as loss of consciousness and therefore of will and of all voluntary power, the patient remains motionless with all muscles relaxed, not because they are paralysed but because he cannot will to move them; of course there is every degree of coma. A point in the diagnosis of coma is the fact that as it becomes profound the eyes move independently of one another and cease to do so in unison, and therefore the eyes cease to be parallel with one another.

Dr. Pitt pointed out that in advanced coma, from whatever cause it may be produced, the pupils are dilated. Thus in giving Chloroform when the pupils are noticed to be dilated, it should be considered as a sign that the danger point of anæsthetisation has been reached, and the administration should be slackened, unless the most profound anæsthesia is required.

The history of the attack is often of the greatest assistance in diagnosing the cause of the coma, and when it cannot be obtained it is often most difficult to differentiate poison by opium, alcohol, etc., from apoplexy.

In cases of coma, the existence or otherwise of paralysis should be made out; if the forehead be irritated the contraction will be unilateral if there is hemiplegia.

In old epileptics the tongue is often scarred, which may assist the diagnosis.

To eliminate alcoholic coma a catheter should be passed, and the urine tested by adding a drop of a solution of $\frac{1}{2}$ per cent. bichromate of potash dissolved in strong sulphuric acid to 15 minims of urine, when a bright green colour will point to a poisonous dose of alcohol.

Optic neuritis points to group (b).

Syncope, which is a form of coma, is the condition found in ordinary fainting fits. The patient is pale and unconscious, and with recovery there may be nausea and giddiness. It is due to inhibition of the heart's action; there is always loss of consciousness.

Collapse, which is often confused with it, is the condition which, for example, is frequently seen after a blow on the abdomen.

The patient does not move if left to himself, but is quite conscious of what goes on around him and may be roused. In the more severe cases of collapse (*e.g.*, in cholera) the patient may appear to be almost dead, the pulse may be imperceptible, and yet, if sufficiently excited, he may suddenly get up and walk across the room.

Syncope then may be called a form of coma, but collapse should not, for in it there is no loss of consciousness; but in both there is cardiac failure.

In hemiplegia, due to a lesion in the cerebral hemispheres, the facial paralysis is more marked in the lower than in the upper part of the face, the movements of the thorax and abdomen are but slightly, if at all, impaired; and the legs are less affected than the arms, because those parts which are accustomed to move in unison on both sides of the body tend to be innervated sufficiently from one side of the brain only, and that the left side.

The question of the origin of the hemiplegia was then discussed.

In persons under twenty the chances are in favor of embolism due to heart disease, in those between twenty and forty it usually lies between syphilis and heart disease, while after forty the probabilities are in favor of cerebral hœmorrhage. This patient was 19 years old, so that the choice was between heart disease (causing embolism) and syphilis. Actual hœmorrhage in young people was sometimes caused by ulcerative endocarditis, the infective emboli leading to the formation of cerebral aneurisms, which subsequently rupture; which is rare and fatal.

In this case there was no evidence of syphilis, while the cardiac condition, on admission, of an accentuated first sound followed by a whiff, was suggestive of the existence of mitral stenosis, which was confirmed later on by the appearance of the presystolic bruit.

In comparing syphilitic lesions of the brain and cerebral embolism, Dr. Pitt remarked that in syphilis the lesions were usually multiple, and that in embolism the condition of the heart was of great assistance in the diagnosis. The short and sudden attack of unconsciousness, followed after a wakeful period by coma, presented by this case was not an uncommon history in a case of embolism. It seemed therefore probable that there was an extensive right-sided softening due to an embolus in middle cerebral artery secondary to the mitral stenosis, this greatly disturbed the circulation in the brain and after a few hours a general convulsive movement took place; but as the right side of the brain was exhausted and had not recuperated itself owing to its lack of blood supply, the convulsions affected only the right side of the body. For the same reason the eyes looked to the right on account of spasm due to irritation of the left side of the brain, while both before and after the fits they looked to the right, on account of softening of the motor cortex on the right side.

The influence of pregnancy was then considered.

The blood clots more readily, the leucocytes being increased and the red corpuscles diminished in number; hence the liability to clotting of the blood in the appendix of the left auricle or in the pulmonary veins, which often ensues in the course of mitral stenosis, is very greatly increased.

The increased arterial pressure due to pregnancy produces hypertrophy and dilatation of the left side, while fresh attacks of endocarditis, on account of the increased work, may also occur, the former probably was the cause of the dilatation which was observed.

The embolus, with or without the intervention of a pulmonary infarct, may have originated from a thrombus in the uterine veins, but would probably have been septic.

As to the prognosis, the existence of the dilatation points to danger during parturition, and, on the whole, a condition of mitral stenosis in women, sufficient to give rise to symptoms, should be considered a contra-indication to marriage.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

SIR,—The "New Germ Theory" advocated in the last number of the GAZETTE, is well worthy of discussion. May I draw your attention to the following points:—

The relations of micro-organisms to either dead or living material is very complex and certainly not yet fully understood, but it is laid down that whilst pathogenic organisms are capable of existing and propagating themselves in perfectly healthy tissues, true septic and zymogenic organisms are totally incapable of existence in the living tissues of living animals. This is the result of numerous experiments made by Bacteriologists of the present day.

The proposer of the above-named theory states that in order to produce tuberculosis it is necessary to have a lesion, say in the lungs, of such a kind that the dead products will serve as nutriment for the growth and reproduction of the bacilli which reach that particular place, and in this way a tubercular phthisis is produced. But if the function of the germs is to destroy the dead matter, should we not expect removal of that substance and consequently no disease, rather than a rapid formation and degeneration, i.e., production of an immense amount of fresh dead material.

And in the case of anthrax, can we suppose that the bacilli at a distance of say two inches from the central slough derive their nutrient material from that slough? Even if that were possible how are we to explain those cases of death after removal of the infected area, and those cases of woolsorter's disease when there are apparently nothing but living structures for the reception of the germs. If we take a simple scratch or punctured wound on the face which was inoculated at the time of its production with a few anthrax baccilli, it is very difficult to understand where the "dead matter already in the body" can be, upon which the bacilli must thrive and undergo such enormous prolification, for presumably the person affected was perfectly healthy, indeed it would be difficult to prove otherwise.

The cases of other fevers are difficult to discover because so little is known as to the nature of the organism concerned. In relapsing fever, however, the spirillum obermeyeri is found in the circulating blood, when the only possible nitrogenous dead materials upon which it could exist are urea and like compounds.

There can be no doubt, I think, that the pathogenic micro-organisms actually live on the healthy tissues or their components, but the case is very different with the septic organisms; here it appears there is a direct antagonism between living tissues and living microbes; this is well illustrated by the exposed wounds.

As every theory that is put forward, if it is to be of any service, should be fully discussed, I hope the author will endeavour to throw a little more light on so complicated and yet so interesting a subject.

I remain, yours, &c.,

E. A.

To the Editor of GUY'S HOSPITAL GAZETTE.

SIR,—Some little time ago there were some letters and articles in the GUY'S HOSPITAL GAZETTE about the advisability of altering the name of the present appointments called "Surgeon's Dressers," to what they are called at many hospitals, "House Surgeons."

I have been anxiously waiting to see if the powers that be would take any notice of these, what I venture to think, most beneficial suggestions.

I think Guy's men as a rule are not sufficiently aware, when seeking for resident appointments at other hospitals, how handicapped they are in not being able to say that they have been house surgeons.

I believe it is not an unusual thing for the Electing Committee of a provincial hospital (from my own experience I know it is so in one case) to eliminate all candidates who have not held the office of house surgeon at some hospital. This is manifestly unfair to Guy's men who have been surgeon's dressers, as that appointment is similar in nearly every way but in name to the house surgeons at many hospitals.

I do hope that the authorities will carefully consider this matter so as to enable Guy's men to hold their own with men from other schools in future competitions.

The present house surgeons as you say Sir, might have the title of "Resident Surgical Officers."

Believe me, yours faithfully,

W. H. JALLAND.

St. Leonards' House, York,
June 27th, 1887.

Prof. Braune, of Leipsic, after a thorough investigation of the mechanism of the hand, has constructed a new sword handle on anatomical principles, which exactly fits the hand, and can be held with absolute safety.—*London Medical Record.*

Passim.

Some time ago, shortly after Dr. Carrington's death, a subscription was started amongst us for the purpose of erecting a tombstone to his memory, as a tribute to his unwearying kindness to us all. The collection of this fund must have been an easy matter enough, for who would not be glad to give something towards so worthy an object.

We imagine, therefore, that a fund is now in existence, presumably large enough to carry out the project, but meanwhile time passes swiftly, and we hear nothing more of what has been or is being done. The unavoidable absence, for a time, of the chief promoter of the scheme may have something to do with this delay. But we hope soon to hear that progress is being made towards the accomplishment of our purpose.

We are glad to hear that the management of the prospective club intend to entrust the catering department to the care of Mr. Millson. In a previous number we expressed our opinion that this would be a popular arrangement and likely to tend to the ultimate success of the enterprise. And this is the general opinion, as we have had ample means of satisfying ourselves since the proposal was first made.

This, by the bye, is not an official announcement, only a rumour at present, but, we hope, a true one.

In return for the assistance of our numerous Contributors, we are glad to be able to announce a new arrangement which, we hope, will to a slight extent, compensate them for their labours on our behalf.

In future every contributor to the *Gazette* will be entitled to receive, gratis, an extra complimentary copy of the number in which his article or letter appears.

The prize list appears in another column. For the benefit of absent friends we would state that the prizes will be given away by the Rt. Hon. Viscount Cross, G.C.B., on the 13th inst., when all old Guy's men will of course be welcome. The arrangements are to be, on the whole, similar to those of last year, but, we venture to hope, more satisfactory in their results.

Our last prize-giving celebration was not a strikingly successful affair, as everyone admits, but the authorities will be guided, no doubt, by the result of that experiment, and act accordingly.

Once more, for the fourth time in succession, our cricketers have won the Cup match. This is, indeed, something we should all be proud of —and we all are, of course. We can afford now to be glad that we acted a magnanimous part in the late squabble, for the Cup is now fairly our own. Thus, for once in a way, Virtue has been her own reward.

On Saturday last, Little, whose familiar figure in the porter's lodge is one of the earliest recollections of hundreds of Guy's men as such, died rather suddenly from the rupture into his trachea of an aortic aneurysm from which he has been known to have suffered for about three years. Mr. Kingsford was sent for hurriedly at about 6 p.m., but Little was dead before his arrival. The aneurysm followed aortic disease due to rheumatic fever, the cardiac affection having been recognised by Dr. Pye-Smith about six years ago. Dr. Goodhart has been attending Little off and on for the last three years.

Hospital News.

MEDALS AND PRIZES.

The Treasurer's Medal in Surgery.—A. H. Williams.
The Treasurer's Medal in Medicine.—Theodore Fisher.
The Fourth Year Examination:—
First Prize £25.—A. E. Poolman.
Second „ £10.—W. Fisher.
The Third Year Examination:—
First Prize £25.—A. Parkin.
Second „ £10.—R. Mothersole.
The Mackenzie Bacon Prize for Ophthalmoscopy.—T. Halliwell.
The Mackenzie Bacon Prize for Nervous Diseases.—E. H. Starling,
T. Fisher and C. J. Whitby commended.

ON DUTY FOR JULY.

House Physicians.—Mr. A. E. Price and Mr. R. M. H. Randell
Junior Do. —Mr. A. S. Taylor.
House Surgeons.—Mr. S. R. Alexander and Mr. E. W. Dubuisson.
Junior Do. —Mr. G. Rowell.
Senior Resident Obstetric.—Mr. E. P. Manby.
Junior Do. Do. —Mr. C. Metzgar.

INTERESTING CASES IN THE SURGICAL WARDS.

7 Accident—Acute Traumatic Synostitis of Hip.
23 ,, Thyroid Dislocation of Hip.
10 Cornelius—Crushed Foot. Gangrene.
22 Martha—Growth on Heel. ? Epithelioma.
15 ,, Epithelioma of Larynx.
2 Job—Retained Testis and Inguinal Hernia (same side).
17 ,, Chronic Intestinal Obstruction after Herniotomy.
J Naaman—Sarcoma of Antrum.
18 Charity—Cystic Tumour of Vulva.
Cot A. ,, Run over. Abdominal Injury.
12 ,, Carcinoma of Rectum,
4 Addison—Syphilitic Ulceration of Rectum.

INTERESTING CASES IN THE MEDICAL WARDS.

17 Philip—Aortic Regurgitation with Cyanosis.
31 ,, Hammerer's Spasm.
36 ,, Aortic Aneurysm with recurrent Paralysis.
37 ,, Jaundice.
7 Stephen—Paraplegia ? Myelitis.
17 ,, Typhus ?
28 Mary— } A Brother and Sister with Acute Lobar
29 ,, } Pneumonia ? Infectious.

ON THE ART OF LEARNING.

September 1867.

W. MOXON.

Amidst all the progresses of all the arts, it is wonderful how little progress the art of learning makes.

The human race is not young at inquiry; and yet, if we set ourselves to impart what is taught as to methods of the art of learning, how little we find ready for use! But every one of us sees that men differ extremely in the facility with which they gain knowledge, and some evidently have a better method than others. Now, the reason of this difference between them becomes a very important question to solve in the interest of the student.

Nobody knows when he began to learn. It is with each of us as it is with the race of us—the commencement of our acquirements is pre-historic. The race is accustomed to assume that those individuals who were nearer the beginning of affairs had more opportunity of insight into the origin of everything; and thus we believe that individuals, with means of knowledge similar to our own, experienced and reported the beginning of the knowledge of our race as known when it began. But each of us severally began to learn when practically there was no faculty of conscious judgment to guide the process, and we are very apt to go on learning with no greater use of such judgment than we began with. Now, it may be said that what served in the beginning may be trusted to continue equally useful; and there can be no doubt that the most advanced student must avail himself of the same service of his senses and memory as gave him knowledge in his infantile days, and also that his preferences for what he chooses or rejects will be guided by the greater or less pleasure which different questions create in him. But though this is so—and we must never fall into the mistake of supposing that we shall advance in learning by reflecting on our present stock of knowledge, but rather by getting fresh things to think about—yet we are, nevertheless, interested very much, as students, in the question why some of us get on so much better and faster than others.

In the first place, I will protest against the assumption that this difference is grounded in any difference in the powers of the individuals. Of course, we are aware that all differences in results show differences in powers, and we may wish any one who is content with that conclusion joy of his discovery; but if any man who does not get on in his study will study why he does not get on, I believe he will soon find out that it is because other things please him better than the getting of the knowledge, or else because he is sleepy—in other words, he fails because of a want of *interest in his subject*, and it is this interest that makes one man exceed another in power. Well, but how are we to get this interest? If we are so unhappily made as to have human forms and lack human sympathies and desires, or have a preponderance of such of those sympathies as belong to our relations to lower creatures, how are we poor abortions to keep up our interest in those noble enquiries that Medicine concerns? The asking these questions in such a way helps us a little; we feel that a high motive may help interest—the desire of being worthy our position. But it is not every one that is amenable to this kind of motive; many must have more practical guidance.

It is late in a man's life when he becomes aware how great is the power he desires. When he feels that "desires fail" (in youth he is too much occupied in one to miss another), then he knows how much of the power he once had was desire; and when he finds that his attention has blunted, and with it his memory and the scope of his thought and influence, then he sees that the affecting and consequent attending to a thing is a great force—aye, as much a natural force as gravitation, light, electricity. True—it may be said—and as much beyond his human will! That is the question. It is, I assure my readers, the essential question for the

student's interest. Is desire beyond the control of the will? It certainly is in infancy, in the half conscious growth of knowledge I have before spoken of. But the turning-point when true study commences is when a youth no longer is led by unreflected motives, if I may so speak—I mean by motives that are not the subject of comparison and reflection—but when he can come to his aid with such a knowledge of how motives act within him that he *shall place his will under them*, so as to have it bent by them to the result most desirable for his highest and best aim—I mean his permanent aim as contrasted with the whim or laziness of the moment. I presume that all who enter our profession wish, when free from temporary excitement or fatigue, to be the best they can. I know there are men who can stoop to gain a great success in ridiculing the want of ultimate issue or of tangible or practical nature in achievements they don't like the motive or the labour of, but this is always a cheap and foolish false triumph, because, indeed, everything as far as our plainly insufficient evidence goes, ends in nothing. Any one who does not find his permanent aim to be for the highest end had better study the cultivation of desire, if there be such a thing.

We must distinguish clearly what it is that we require to desire in order to learn. No doubt all of us desire learning or knowledge—we all want to know; but fewer are those who desire the steps and means of knowing. Every one would like to have a thorough knowledge of the composition of things, but he perhaps can't bear chemistry, which empowers him to reach after it. As we grow in knowledge, so comes ever more and more the power to know, and only by that growth does the power come. The power to know is the fruit of knowing, as life of life, or as nascent oxygen of oxydation. It is not the desire or liking of the *result* that we must aim to obtain, but the liking of the *process*. Now, how is this to be got by those who imperfectly possess it or do not possess it at all? I will presently show. But it is yet, perhaps, well that we should recall some of the miseries with which a poor mental appetite receives, amidst nausea and sense of over-fulness, what it is forced to take; most of us know the feeling too well, but the feeling is the least of the misfortunes attendant on this cramming process. The worst of the misfortunes is the utter futility of what is to be obtained. An over-taxed mind—by that I mean a mind striving without desire, whipped after what it should be longing for—such a mind is persuaded to what it reaches, not intelligently, but rather as impotence persuades the will, or as sleep persuades activity. It sinks into acquiescence rather than rises into concurrence with the truths it is reaching.

On the other hand, whoever moves with desire to know, is genius in what he thus obtains; even the poorest intellect is genius in what it so obtains. Its acquisition is the work of an inner factor identical with what is called genius, which is only a carrying on of the same pursuit to a rather higher level than ordinary people have it. On the other hand, knowledge which does not come through desire that is excited by knowledge already possessed, is mere encumbrance. It should not be called knowledge, it is only held by a kind of proxy. The knower knows that somebody knew it, and if that is the sort of his knowledge, he is but like a keeper of signboards who has none of the things they signify—all his seeming riches are but *occupata paupertas*. These are the sort of men whose learning goes with a leading hope that the enquiry will soon be over, as if anxious, like Mr. Barnum, lest they should learn too much.

We should make a great mistake if we supposed that this kind of false learning is limited to a certain class of students. The truth is, that everybody learns more or less in this way; some more, some fortunately less. Everything so learnt is a weight to carry, not an accession to strength; and if any large part of one's acquisition be of that kind, then his mental activity becomes seriously reduced, and can only be restored by the loss of the load, which is pretty certain not to be very long in happening, only that, instead of going clean away, little bits of it stick where they are not useful nor ornamental.

The propositions I have advanced are, that enquiry or desire precedes every item of true knowledge, and that knowledge got through any *final* motive—I mean for an ultimate aim rather than the enquiry raised by the previous steps of acquirement—such knowledge is a burden. It adds to the weight you carry and not to the strength with which you carry other weights. It is not incorporated into your mental structure. It may cling to its place in you, but it is like so much extra fat in the omentum, requiring to enter a second time into the circulation if it ever be assimilated to the living active structure of the mind.

The direction of enquiry to obtain what will be practically useful is a second consideration. Of course, I have not meant in what I have said that a man is to learn on aimlessly; rather, I mean that the aim to obtain what will stand him in good stead in practice is the secondary aim, and that he will not achieve it unless, as a first condition, he is all the while getting what he is obtaining with lively interest in the successive steps. The direction of what he is to strive to acquire his course of study will give him, and the examinations he has to pass will require that he is "up" in these particular sorts of knowledge. What I am enforcing is an antecedent to all this. If any of us succeed in getting, so to speak, thirsty and hungry after the morsels of knowledge, then he will have gained a sure means not merely of passing examinations but of wielding influence when he has passed—of exercising that power in intercourse with his fellows which is essential to success in professional life. Now, interest in any subject is wholly beyond the *direct* control of the will—indeed, the will is always a disturbing element in such interest, as many a student knows, who, when he wants badly to keep to the subject he is working at, has to support the

pressure with which his attention refuses to be fixed on it, until the will is rather engaged with the attention than the attention with the subject to be studied. One, then, instinctively may desire that some love should spring up between the anatomy and one's wayward thoughts, so as to draw them towards each other, as they cannot be driven.

My object in writing all this is to urge what I believe to be the one and only means of adding to or acquiring the desire or appetite for each item of knowledge whose necessity I have enforced; and that means is soon stated. It is this—Interest is contagious. It is almost the only good thing that is so; and when our interest is not up to the mark, we may excite it, or even acquire it, by mixing in the society of those who are earnestly engaged in what we are languidly following. Here every one's will can aid him. Let him be convinced that the influence of other minds helps his own to desire what they are seeking; and if he wants to desire what he does not desire, he has only to put himself along with some one who does desire it. You may see how surely and naturally this turns out any day on London-bridge, for if one man looks over as if he saw something in the water, several others are sure to go and look, till you see quite a company looking for they do not quite know what.

If a man thus puts himself in the way of interest it will carry him along; and he can do so voluntarily, as freely and certainly as a ship's master can put his vessel in the trade winds. There is no more important step for the man who is about to join a medical school than the choice of the school he is to attach himself to. He will soon be following the general bent there, and he is scarcely responsible for its influence, once under it, it is so overpowering. But he can choose beforehand, and in a free and responsible way. This is the formula for choice:—*Choose the school where men, of the kind you like, study medicine with warm interest.* As to the teachers, they are of secondary importance and use in this light—only valuable so far as they throw interest into their subjects, and encourage it in the society of students. Teachers speak from the standpoint of culture they have themselves attained, and learners receive with the light and experience they have on their part reached; and so the effect of the saying of the first on the mind of the second may be very different from the knowledge that woke the teacher's utterance, even supposing the learner's apprehension to be accurate enough to interpret exactly the proper import of the words employed, and supposing that he rightly conceives the teacher's signification as far as such a signification has a parallel in his own mind. See how different may be the scope, and colour, and bent of the nearest parallel in minds remote through age as well as character.

On the other hand, our fellows who are around us pursuing the same stage of enquiry in the same subjects, if we join their company and enter into their spirit, impart a whole atmosphere of light—that is, if they are the right sort of company. They must of necessity be congenial company, or repulsion rather than attraction will be the result.

The best school is the school where the most companionable sort of men are also the most ardent students. In every school, students' societies should maintain the interest of study for the common benefit, and the best test of a school's efficiency is the flourishing state of such a society. The number of men who pass high examinations is a less efficient test. Some schools let the common-place men alone to carry up the clever ones, but the common-place men make the majority.

Sport.

GUY'S v. MITCHAM.—On Saturday, June 18th, we played this return match, and again got beaten. Being minus the services of three of our best men, we could only total 123, Russell being the top scorer with 24 not out. Mitcham lost five wickets before passing one score, but then our fielding became frightfully slack, and the total reached 226. With the exception of Rygate, who was consistently good and got 6 wickets, our bowlers were much below their usual form.

GUY'S v. BLACKHEATH.—On Thursday, June 23rd. No less than five (Rygate, E. Mitchell, Fripp, Roberts and Busterd) of our regular team were unable to play, and time alone saved us from a most crushing defeat. Blackheath made 330, including Hemmeide 119, Budworth 52 and Lacey 54. W. Mitchell got 6 wickets and G. Mitchell 3. W. Mitchell, Scott and Colclough hit up 60 between them, but we lost 6 wickets for 68 before the call of time left the match drawn.

GUY'S v. R.I.E.C.—Cooper's Hill, on Saturday, June 25th. This match was scratched by our opponents.

GUY'S v. PALLINGSWICK.—On Saturday, July 2nd. We went in first and made 121, E. J. Mitchell playing a dashing innings of 59, which included no less than twelve 4's. Our opponents could only make 96, Scott taking 3 wickets and E. Mitchell 4. On going in again we put together 206, F. M. Russell playing a really splendid innings of 81 not out, including a 5 and fourteen 4's. His cutting was particularly brilliant.

GUY'S v. LONDON.

This the final of the Inter-Hospital Cup ties was decided at Kensington Park ground on Monday and Tuesday, July 4th and 5th. Though at two or three points in the game we felt anything but safe, we were eventually victorious by 57 runs. Winning the toss, we took the first innings on a good fast wicket, and were very much disconcerted to find ourselves all out for 87, only three men having reached double figures. Simpson was the bowler we had feared most, but Kyffin (fast

right hand) was the chief cause of our downfall. After lunch London had their turn, but our fast bowler proved even more disastrous than theirs, W. Mitchell taking 6 wickets while they were making 14 runs off him. The ninth wicket put on 20, but they were all out for 60; leaving us with a balance of 27. We started our second innings at 4.30 under the firm conviction that we should be able to put together a long score, but we did not go about it the right way, for instead of playing carefully nearly every man went in for hitting—just as if the match was all over, and all we had to do was to amuse ourselves till the call of time. There was a whole day before us, and I think that if the men had taken the trouble we might have made a lot of runs; as it was, two men did well (Bolus soon hit up 33 and E. Mitchell played an iuvaluable innings of 43 not out), and four more did decently, Scott, Fripp, Colclough and W. Mitchell getting double figures. We were all out just before seven o'clock for 156, and on Tuesday morning London went in to make 184 to win. Fagan and Simpson played very pluckily for 33 and 23 respectively, but nobody else did much, and the match was over at about three. W. Mitchell, who had bowled so well on Monday, was absolutely off colour; but Rygate, E. Mitchell and Bolus were very much on the spot. After reading the latter's analysis in one case understand that runs came slowly—20 overs, 15 maidens, 8 runs and 2 wickets. Full score and analysis:—

GUY'S HOSPITAL.

1st Innings.		2nd Innings.	
W. J. Scott, b Kyffin	0	b Leaf	10
F. Colclough, b Kyffin	3	b Kyffin	28
H. B. Bolus, b Kyffin	5	b Leaf	33
W. G. Mitchell, b Kyffin	13	b Kyffin	11
A. D. Fripp, c Kyffin, b Simpson	20	c Fagan, b Simpson	14
J. H. Roberts, b Simpson	4	b Simpson	4
E. J. D. Mitchell, b Kyffin	4	not out	43
F. M. Russell, not out	16	c Debenham, b Simpson	0
W. G. Featherstone, c Simpson b Leaf	9	b Simpson	6
C. D. Rygate, b Leaf	2	b Simpson	0
J. H. Busteed, b Kyffin	1	b Kyffin	2
Extras	10	Extras	12
Total	87	Total	156

LONDON HOSPITAL.

1st Innings.		2nd Innings.	
R. J. Hutchinson, b W. Mitchell	4	b E. J. Mitchell	13
F. G. Scott, b Rygate	0	run out	17
S. H Birt, lbw Rygate	1	c Russell, b Bolus	8
W. C. Hitchens, b W. Mitchell	7	c Roberts, b E. J. Mitchell	4
A. R. Fagan, b W. Mitchell	3	c Busteed, b Bolus	33
C. H. Leaf, c Russell, b W. Mitchell	7	b E. J. Mitchell	2
G. A. Simpson, b W. Mitchell	7	lbw Rygate	23
H. E. Burch, b Rygate	13	c Busteed, b E. J. Mitchell	0
A. B. Debenham, b W. Mitchell	0	not out	10
H. C. Barnes, c Roberts, b Bolus	11	b Rygate	1
J. Kyffin, not out	0	run out	0
Extras	7	Extras	9
Total	60	Total	126

BOWLING ANALYSIS.

GUY'S.

	1st Innings.				2nd Innings.			
	Overs.	Mdns.	Runs.	Wkts.	Overs.	Mdns.	Runs.	Wkts.
Kyffin	28·3	10	42	6	38	11	44	3
Simpson	22	10	32	2	42	18	56	5
Leaf	7	4	3	2	22	12	19	2
					Debenham 18	4	25	0

LONDON.

	1st Innings.				2nd Innings.			
	Overs.	Mdns.	Runs.	Wkts.	Overs.	Mdns.	Runs.	Wkts.
W. Mitchell	25	12	20	6	17	5	39	0
C. Rygate	27	12	31	3	23	10	21	2
Bolus	3	2	2	1	20	15	8	2
E.J.Mitchell	2	2	0	0	11	2	36	4
					W. J. Scott 5	3	3	0

At a recent meeting of the Académie des Sciences, M.M. Donings, Freire, Gibier and Rebourgeon communicated a note upon the microbe of yellow fever. These are micrococci collected together in long sinuous rows. The fever is transmitted to animals by the injection of diseased matters or cultivation fluids. These fluids gradually lose their virulence and may be converted into benign vaccine. At Rio Janeiro thousands of persons have been inoculated with attenuated cultivations. — *London Medical Record.*

MACKENZIE BACON PRIZE.

1. Describe a case of marked hysterical hemianæthesia in a woman. Also the case where hemianæthesia is due to a sudden apoplectic effusion and accompanied usually by hemiplegia. Give the exact seat of the clot.

2. A little boy, aged 12, was admitted into the hospital with cerebral symptoms. During the four months until his death these increased in number and intensity. After death, as was correctly diagnosed, a scrofulous tumour, the size of a billiard-ball was found in the left lobe of the cerebellum, near its surface, and pressing considerably on the left side of the Pons Varolii and Medulla Oblongata. Describe the symtoms which the patient had from the commencement of the growth of the tumour until the termination of the case.

3. Give an outline of the affections known respectively as Friedreich's disease and Thomsen's disease.

4. What are the chief varieties of disorder classed under "Mania," and give a description of the ordinary course of one of these?

5. What are the chief causes and symptoms of Puerperal Insanity?

6. What are the chief points to be observed in signing a Lunacy Certificate?

WANTED, QUALIFIED ASSISTANT in Cumberland; age 25, or upwards (indoor or outdoor); must be well up in Midwifery; able to ride.—Send references and carte (to be returned), and state salary, to "Æsculapius," 18, Curzon Street, Maryport.

Guy's Hospital Gazette,

JULY 23, 1887.

CASE OF ERUPTION ON FACE AND LIMBS.

M. P., æt. 54. Admitted into Miriam Ward, under the care of Dr. Pitt, June 22nd, 1887, for eruption on face and limbs.

Family history.—Good.

Previous history.—Twelve months ago had a red eruption like ring-worm on both arms; it lasted about one month. Had a sore throat and tongue about one year ago, and has since attended throat out-patients, where she was treated with caustics. No direct history of syphilis, but patient has had two miscarriages.

Present illness.—Has had marked anæmia for some time.

Seven days ago she became ill, and has vomited in the morning every day since. She came out in red spots, which, four days ago, became tubercular, and had running from the eyes and nose.

Her husband is a carman who grooms his own horse. This horse, he asserts, is quite well. There is a stable close by. No cause of infection can at present be traced.

Condition on admission.—Face. There is a small flat papule over left eye covered with a black slough. On the right forehead is an elevated papule, the size of a split pea; this has not suppurated. Eyes puffed and patient is unable to open them. There is diffuse infiltration of purulent matter in the loose tissue under and around the orbit, also slight ecchymosis and scabbing. Yellowish thin purulent secretion from eyes. There is a small papule to right of nose; the latter is extensively ulcerated inside the nostrils; alae nasi thickened, everted and covered with scabs. Discharge from nostrils thick, yellowish, and offensive. Lips much swollen, excoriated, and scabbed. Tongue swollen, sloughy and excavated at right edge. *Neck.* Ring of bullæ beneath chin; these form slightly raised patches, irregular in form; some have run together; they are all suppurating beneath skin and surrounded by a red blush. *Arms.* Over extensor surface of each elbow is a large flat granuloma of a shining, bluish appearance at the edge, and sloughing and ulcerating over most of its surface. Numerous papules scattered over forearms, chiefly on extensor surface. There is a bluish yellow nodule on each knuckle, somewhat larger than a pea and semi-fluctuating; some are thick and dry, others vesicular, whilst some form pustular bullæ with a depressed centre. There is œdema of each forearm. *Buttock.* Within the fold of the nates are two or three pustular bullæ. There are scattered papules all over this region. *Legs.* Some part of legs œdematous. On the anterior aspect of the lower third of the right tibia is a flat, slightly raised patch. This is red, and the redness readily disappears on pressure. Just above the outer malleolus on left leg is a blush ten inches long, at the lower end of which is a thick granuloma the size of a sixpence.

Heart and temp. normal.

Urine 1·011. No sugar. A trace of blood. There is a good deal of albumen and a white deposit consisting of granular casts, bladder-cells, and phosphates.

26th.—Seems better; sleeps and takes her food well.

27th.—Still improving. Several fresh papules have appeared on the right buttock and thigh; many have already become black in the centre. T., 98·4.

28th.—Has not had a good night. Did not relish her dinner to-day, and wished to be let alone.

29th.—Has had a bad night; scarcely slept at all; seems very drowsy. Some of the places on buttock are vesicular and some pustular. Does not take her food well.

30th.—About 6 p.m. to-day became much worse; was roused with difficulty; breathing became very laboured; and at 7 p.m. she died.

P.-M.—Scars over eyelids, nose, mouth, around neck and over scalp. On left forearm the scar measures 9½ in. long, 5½ wide.

Nature of lesions uncertain beyond the fact that they were granulomata.

NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

II. TUBERCLE (*continued*).

The Distribution of Tubercle is of some importance, both clinically, and as shewing the influence of tissue proclivity.

As a rule, in one individual, it takes a certain distribution.

a. The commonest is ordinary phthisis, with ulceration of the larynx and intestines; now, as showing tissue proclivity, acute pneumonia has the same tendency.

b. Serous membrane tubercle :—

Peritoneum. Pleuræ. Pericardium.

Not arachnoid membrane; and, curiously, this is not now known as a serous membrane.

The importance of this form is, that it, for the most part, remains so limited, and is often recoverable from

c. Genito-urinary tubercle (often primary).

Kidney.	Urethra.
Ureter.	Fallopian tube.
Bladder.	Ovary.
Testis.	Uterus.

d. Tubercular disease of adrenals (Addison's disease), often associated with caries of spine. Solitary yellow tubercle of the brain and tubercle of supra-renals have been found together, and glioma of the same two organs.

e. Tubercle of lymph glands and spleen. The analogy is Hodgkin's disease.

f. Tuberculosis of joints comparable with pyæmia.

All these forms of distribution are of clinical importance, and they all show that different tracts have associated proclivity for disease.

Whatever may be the nature of tubercle (inflammatory or specific) there is no doubt of the following :—

That both yellow and grey tubercles are met with in the same lungs, or that either form may be exclusively met with.

When all the tubercle is of the grey miliary form we have acute miliary tuberculosis, the lung of which has already been described.

The lung of pulmonary phthisis varies much in appearance in relation to the duration of the disease; the oldest mischief is almost always at the apex (often of the left lung) in adults, but in children this localization is not so definite; here the mischief often creeps in at the root of the lung.

A common occurrence is to find caseous masses of very variable extent at the apex, more or less riddled by cavities; lower down, caseous material not yet broken down; and, still lower, grey miliary tubercle. We may say almost without contradiction that, in this case, we invariably find the opposite lung diseased; it may be that there is only a deposit of grey tubercle at the apex, or there may be caseation and cavitation to a variable extent.

According to the chronicity of the disease the tubercular products vary. If the advance of the disease has been rapid we find the products all yellow and softened; if chronic, more or less fibroid change, so that the lung is infiltrated in all directions by fibroid deposit, and caseous or calcareous masses, surrounded by zones of *fibroid phthisis*, and no doubt includes most of the cases so called. Here again, the oldest disease is at the apex, and undoubted tuberculosis will be found in other parts of the body (intestine most commonly).

In the rapidly progressive case, tubercle quickly undergoes fatty degeneration, caseates and breaks down; in the other case the tubercle undergoes a fibroid change.

Vomicæ are of variable size, from the smallest possible up to the size of a whole lobe, and, when recent, have soft irregular ragged walls composed of yellow caseous material; sooner or later, if the patient survive, they become quiescent and undergo cure; the walls become smooth, they become surrounded by a zone of fibrous tissue, and internally they are found to be traversed by trabeculæ bands, which are either remnants of the original connective tissue of the lung or obliterated branches of the pulmonary artery.

It is very important to note that these branches are frequently the seat of small aneurysms, which are present in the majority

of chronic cases, and which are the almost invariable cause of the fatal hæmoptysis which so frequently cuts off a case of chronic phthisis.

Besides cavities formed by degeneration, some of them are found to be due to dilated tubes; these would be due to the same causes as those to be discussed under chronic pneumonia.

Chronic Fibroid Phthisis is, no doubt, in the great majority of cases, a true tubercular disease, but the question is raised whether it may not in some cases be the result of an ordinary acute pneumonia.

Now, there is no doubt that acute pneumonia in the vast majority of cases ends acutely, and does not become chronic (Dr. Wilks says *never*). But under the heading of *chronic interstitial pneumonia*, two classes must be described:—

(*a*) (Wilks.) Cases of old pleurisy in which we find the pleura greatly thickened, including that beneath the lobes. The inter-lobular connective tissue is thickened and the whole lung more or less contracted and destroyed by infiltration of fibroid tissue. This is limited to one lung; there is no tubercle found in these cases.

(*b*) Besides these causes there are a few undoubted cases in which after an attack of acute pneumonia the bases of one or both lungs have been found contracted and destroyed by infiltration of fibrous tissue, and with thickened pleuræ. Now, to these cases the term chronic interstitial pneumonia applies, and they constitute a small proportion of the cases of clinical "*fibroid phthisis.*"

(To be continued).

Hospital News.

On Wednesday, July 20th, Dr. G. N. Pitt was married to Miss Heriot, of Graeme's Dyke, at the parish church of Harrow Weald.

CASES IN MEDICAL WARDS.

22 Philip—Aortic Disease; Paralysis of Right Arm with Embolism.
40 ,, Thoracic Aneurism.
3 Stephen—Abdominal Aneurysm.
7 ,, Lead Paralysis.
31 ,, Double Optic Atrophy with Locomotor Ataxia.
13 Mary—Aortic Stenosis.
20 ,, Splenic Leucoythemia.
21 ,, Double Optic Neuritis.
31 ,, Hemichorea.

CASES IN SURGICAL WARDS.

13 Charity—Epithelioma of Lip.
20 Martha—Schirrhus.
22 Keloid.
16 Addison—Epithelioma of Jaw.
20 ,, Concussion of Spine, *main-en-griffe.*
Samaritan—Secondary Syphilide.

THE DISTRIBUTION OF PRIZES.

We extract the following account from the *Morning Post* of the 14th inst.:—

Dr. Vaughan, Dean of Llandaff and Master of the Temple, took the leading part yesterday afternoon in the annual distribution of prizes to the students of Guy's Hospital. Viscount Cross, who was to have presented the awards was prevented, at the last moment, from attending, and concluded a letter to the governor, apologising for his absence, by offering a prize of £5 5s. "for whatever you may think best." The ceremony took place in the Board Room, which was crowded with visitors, and the proceedings were opened by the Dean of the School (Dr. Taylor), who read the report for the past year. This document stated that the school was in a prosperous condition (the entries last October having been 101 as against 91 in the previous year), and that the students had taken a prominent position in the University and other competitions for medical honours.—Dr. Vaughan then distributed the prizes. The gold medals for clinical medicine and clinical surgery were taken respectively by Mr. Theodore Fisher and Mr. Arthur Henry Williams, the first-named also winning the Beaney prize for pathology. The Gurney Hoare prize for clinical study was divided between Mr. S. Wacher and Mr. R. Capes. Mr. Thomas Halliwell and Mr. E. H. Starling received the Mackenzie Bacon prizes for ophthalmoscopy and nervous diseases respectively, and Mr. Frederick William Hall the Michael Harris prize for anatomy. In the competition for the 125 Guinea Open Scholarship in Arts, Mr. F. H. Brown and Mr. G. M. Pratt were equal; and Mr. B. W. Hogarth took a scholarship of similar value in science.—The distribution over Dr. Vaughan delivered a brief speech, in which he remarked that the medical profession was constantly finding new ground to explore, and of recent times a great many other professions, notably that of nursing, had clustered round it. That profession provided one of the most beneficent and characteristic careers that could be opened to the ambition of women, and he could only wish that the ambition of women might always choose a form equally suitable and characteristic.—Lord Lyttelton moved, Dr. Pavy, the senior physician of the hospital (who said that the effort of the governors to raise £100,000 had resulted in a very close approach being made to that sum, and had probably laid the foundation of further supplies), seconded, and Mr. Bryant, senior surgeon, supported a motion thanking Dr. Vaughan for his attendance. This having been carried and acknowledged, the company proceeded to visit the wards, the museum, and the other buildings connected with the hospital and the medical school,

CASE OF MALIGNANT DISEASE OF CERVIX UTERI. AMPUTATION. RECURRENCE. REMOVAL OF RECURRENT GROWTH.

S.B., æt 30, was admitted into Dorcas under Dr. Galabin, on January 10th, 1886, complaining of discharge of blood from vagina during last six months.

Menstruation commenced at 16; it was regular every four weeks, periods lasting two or three days, and not profuse until last six months. Aura, pain in back one day before. Has been pregnant once; pregnancy was in 1870, went to full time, labour difficult. No family history of malignant disease. Married when she was 13¾ years old, husband still living. General health always good, never any serious illness.

About six months ago she first noticed a bloody discharge from vagina, which was increased at the menstrual periods, and was present during the intervals; it has been gradually increasing, and she now uses four times as many diapers during periods as usual; "pieces like skin" come away with discharge; she has no pain except when these "pieces" pass from her.

On admission.—Patient is well nourished; says she has not lost flesh. There is profuse bloody discharge from vagina, not foul. Micturition and defæcation normal. Urine acid, sp. gr. 1·012. Slight trace of albumen.

On vaginal examination the uterus was found to be moveable; the anterior lip of the os uteri projects from the posterior; the posterior lip feels nodular and bleeds easily. Through Fergusson's speculum the anterior lip is seen to be fairly healthy, whilst on the posterior lip a raw granular surface with irregular edges is seen.

Treatment, mist. ergotæ. ʒi t. d. s. Vagina to be stretched with a Barnes's bag.

Dec. 21st. Put under A. C. E. mixture in lithotomy position, cervix drawn down with tenaculum; uterine artery tied on left side in the broad ligament, the attempt to tie the right one failed owing to the bad quality of the needle. A wedge-shaped piece was then cut out of the cervix, the apex of the wedge corresponding to the body of the uterus; the operation was done with curved scissors through a Sims' speculum. The hæmorrhage was very slight, no vessels requiring ligature. Vagina plugged with oiled lint.

Dec. 28th. Has been very well since the operation, no febrile disturbance. Solution of perchloride of zinc (gr. 30 ʒi) applied to stump, this caused considerable pain. Suppositorium morphiæ gr. ½ at 4 and 11 p.m.

Dec. 31st. Feels perfectly well. Temperature 98·4°.

Jan. 4th. Two sloughs, one about size of half a crown, the other a little smaller, were removed this afternoon, they were not foul.

Jan. 6th. Going on well Got up. Temperature normal.

Jan. 8th. Through Fergusson's speculum an extensive healthy granulating surface is seen; vaginal epithelium has been removed partly from anterior and posterior walls; no more sloughs, very slight discharge.

Jan. 10th. Went home.

Feb. 12th. Re-admitted. Says she has gained flesh and has had no discharge since she went home. Through Sims' speculum, posteriorly a small rounded nodule about size of a pea can be seen and felt, the epithelium over it does not look healthy.

Feb. 22nd. Under chloroform the nodule was removed with scissors, and the perchloride of zinc solution applied.

Feb. 24th. Good deal of pain. Temperature 99·4°.

Feb. 26th. Very well, no pain or discharge.

March 1st. Large slough removed, no pain or hæmorrhage.

March 9th. Cervix quite healed, looks healthy, no slough left.

March 12th. Went home. Is menstruating.

Remarks.—There are many points of interest in this case. The early age at which cancer may show itself in the cervix uteri. Patient was married before she was 14, had a full-time child before she was 15, and did not menstruate until she was 16, so showing that pregnancy may occur previous to menstruation.

Two symptoms of cancer of the cervix were wanting in this case, loss of flesh, and foul smell of discharge; this, no doubt, is accounted for by the fact that it was very early in the disease. It may be pointed out that the recurring nodule could be felt more easily than seen. As regards the treatment of these cases, the question may fairly be raised as to whether we are justified in doing so slight an operation as removal of the cervix, or whether we ought not to suggest some major operation where we can remove a wider margin of healthy tissue with the growth. Surely if cancer commences as a local disease excited by some local irritation, in cases where the uterus is not fixed and there are no signs of glandular implication, we should be consulting the interests of our patients more by removing the whole uterus than in doing a niggling little operation like amputation of the cervix, especially in this age of decreasing mortality in abdominal surgery? Would not the finger of scorn be pointed at any surgeon who tried to remove a cancer from a breast instead of removing the breast with the cancer in it, so as to remove a wide margin of healthy tissue with the cancer.

R. CAPES, L.R.C.P., Lond.

EXAMINATION FOR M.R.C.S. & L.R.C.P.

MEDICINE.

1. What are the causes of Pneumothorax? Are there any other conditions of the chest for which it may be mistaken; if so, distinguish them. How would you treat a case of Pneumothorax?

2. What are the causes of Thrombosis in the Middle Cerebral Artery? Describe fully the symptoms and pathlogical states that would be entailed by occlusion of this vessel.

3. Give a description of the appearances found on opening the Abdomen where death has resulted from Acute Peritonitis in a case of Bright's disease with large white kidneys; and mention what associated changes are commonly found within the chest and abdomen?

4. Describe the characteristic appearances of an advanced case of Rickets. Give a brief account of the origin, course, and event of this disease. What treatment, preventive or curative, would you adopt?

5. What are the symptoms which indicate the impaction of a calculus in the common Bile-duct? Describe the various consequences which may follow the impaction. How would you treat such a case?

6. State the treatment you would adopt in a case of Acute Rheumatism. How would you modify this treatment if the Rheumatism were complicated with Peri- or Endocarditis? Write your prescriptions in full.

SURGERY.

1. Describe the Prostate Gland, and give its relations. In what way is it concerned in the operations of Catheterism and Lithotomy?

2. Give the exact position of the Palmar Arches with reference both to the surface and deeper parts. How would you avoid wounding these arches or their digital branches in opening an abscess in the Palm?

3. Mention the varieties of degeneration which the coats of Arteries may undergo. Give their pathology and cause, and state the results to which they may severally lead.

4. What causes produce Gangrene of the Bowel in Hernia? What symptoms would lead you to suspect its occurrence, and how would you treat the case?

5. Describe the different forms of Nasal Polypus, and give the treatment and prognosis of each.

6. How would you examine a patient who had received an injury to the hip in order to ascertain the nature of the lesion?

MIDWIFERY.

1. Enumerate the principal causes of delay during the first stage of Labour, and the best means of dealing with them.

2. Describe the mechanism of Labour with the face presenting and the chin posterior and to the right.

3. Describe the varieties of the Human Placenta, and the examination which should be made of the placenta and membranes to ascertain that no part of them has been retained.

4. Name the conditions which may lead to retention of the Menses. How should such retention be treated, and what dangers attend the treatment?

5. Enumerate the varieties of *non-sanguineous* discharge which may escape through the vaginal orifice and from the vulva, and mention the diseases which give rise to them.

6. A patient who is 7 months pregnant has had three Convulsive Fits at intervals of half an hour. The patient is somnolent but not comatose. Describe the treatment of such a case, and the grounds on which the prognosis should be based.

REVOLVER BULLET WOUNDS.—At a recent meeting of the Surgical Society, M. Reclus communicated the results of trials made by himself upon dead bodies with revolver bullets. With a bullet of 7 millimètres aimed at the cæcum, an anterior and posterior perforation of 7 millimetrès was made. When the intestine is perpendicularly traversed, the orifices made by the ingress and egress of the bullet are generally of the same size as the bullet.—*London Medical Record*.

A CASE OF PUERPERAL ECLAMPSIA TREATED BY PILOCARPIN.

Under care of Dr. Horrocks.

Elizabeth L., æt. 21, married one year, seven months pregnant. Labour pains began at 12 noon, June 28th; they occurred about every twenty minutes, but were very feeble. The extern was sent for about 2 p.m.; he found the os uteri dilated to about size of a shilling, and the vertex presenting, and the pains weak and the membranes unruptured. After he left the pains ceased entirely. At 6.45 p.m. the patient had the first fit, and at 10 p.m. she had a second one. The extern was sent for again, and then came back and reported the case to the charities. A third fit occurred about 11 p.m., shortly before the arrival of the charities.

The consent of the husband was obtained for transferring the patient to the Hospital about 1.30 a.m., June 29th, but before this she had a fourth fit.

A cab was obtained, and the patient wrapped in blankets and brought in it to the Hospital.

A fifth fit occurred while she was being moved from the cab to the stretcher.

On admission at 2.30 a.m.—Patient was at once placed in bed. She was very puffy about the face, and there was considerable œdema of the limbs and the skin was very white. The urine was loaded with albumen and contained blood. She is in a somnolent condition, but occasionally calls out and tosses about ? pains, then relapses again to the drowsy state.

Pulse 108. R. 36. A good deal of râle in the throat.

At 2.40 a.m. a subcutaneous injection of Pilocarpin gr. $\frac{1}{6}$ was given, but this did not seem to produce any diaphoretic effect (probably because the solution was not fresh), though no fits occurred. At 5 a.m. a fresh solution of Pilocarpin was obtained, and gr. $\frac{1}{6}$ given, and within a very few minutes produced profuse sweating and flushing.

5.45 a.m. Pains became more distinct, os uteri not much more dilated, but membranes tense during a pain. Uterus and presenting part getting lower in the pelvis.

A little urine drains off with a catheter.

11.30 a.m. Fœtal bruit heard in usual position, abdominal palpitation brought on a severe pain. Injection of Pilocarpin gr. $\frac{1}{6}$ which was followed almost at once by a fit precisely like the previous one.

2 p.m. Another fit. Injection repeated.

4 p.m. Fit.

5 p.m. Fit.

5.45 p.m. Pains had been increasing in force for last hour, then the membranes ruptured, and parturition occurred before the charities could reach the ward. The child, whose size corresponded with the stated age, was quite dead.

June 30th. Patient is very comfortable this morning, there have been no more fits. She is rather drowsy still.

July 1st. Patient is quite sensible, but has much headache. From this date patient made an uninterrupted recovery, the albumen disappearing from the urine and the headache getting better.

E.P.M

CONVALESCENT HOMES.

On the bed-letter of No. 23, the Dresser, pardon me, I meant the Ward Clerk, has written by authority of the Surgeon in whose charge No. 23 has been, the short sentence—"To go out." The Ward Clerk gives forth a great sigh of relief; to him it means that no longer will he have to cudgel his brains in the vain endeavour to ring changes, in that interminable report, on such statements as that "the sinus is now nearly closed," "the patient takes his food well," and the still more astounding fact that "his bowels are open daily." And moreover it means a new, and let us hope, "interesting" case; as for the patient, well, at anyrate he is out of danger and can lie up at home, a change will do him good; to end matters the bed is urgently needed.

The patient, how does he view the matter—"Got a wife and five little ones, sir,"—not much good discussing the Malthusian theory with him.

What is his home like? "Oh! he lives in D—— Court" (houses with rooms that no packmaster would keep his hounds in, ill-ventilated, badly drained,—you know the kind of hovel too well).

But hope comes when the prospect seems darkest.

The Sister of the Ward suggests that perhaps they might be able to get him into a Convalescent Home. After a few days of waiting the welcome news comes to "23" that he is to go down to the Home. There has

been a little hitch owing to the patient having a small sinus, for any wound still unclosed is prohibitory to admission into most of these homes.

Let us follow and see what his life is like. Out of bed at seven; prayers and breakfast at eight; assist about the house until ten, at liberty until twelve-thirty or one; wash up dinner crockery, again at liberty till tea at six, and during evening plays dominoes or reads the books and papers lent him; at nine supper and bed.

We are only speaking of homes for hospital patients, leaving for a subsequent paper the consideration of other convalescent homes.

Most of the peculiarities of these institutions spring from their being built and supported by one lady whose ideas and "fads" are evidenced in the rules for the management. That the person who endows an institution and supports it has a right to govern it, as she chooses, we do not question, but to expect all patients to go at once on full diet, for instance, or to have nothing to eat from eight until one o'clock is rather too bad. Again, some of the rules are fitted for a foundling institution, take a single one—"a fine of sixpence for spilling ink"—but the children in the latter place would not be able to pay.

These homes such as they are, do a vast amount of good in many ways, especially those for fever cases; just think of the risk to any district that is run by a single convalescent scarlet fever case being nursed at home, and multiply this by 20,000, the number of infectious cases annually in contact with the people of London. To the patient they are a direct gain, for the unutterable weariness of convalescence is tided over, and the flickering sparks of life are quickly fanned into a vigorous flame.

It is a great pity there are not more of these homes, at present there is not room for a tenth of those whom a change would greatly benefit, and numerous cases have to linger on in the wards of our hospitals (the surgeons being loth to send them out, knowing what their tenements are like, and the attention they would get), which would recover speedily if properly fed and rested by the sea-side or in the country.

A great advantage and addition would be made to most of these homes if there was some medical supervision, and this would also greatly increase their system of usefulness.

Again, it would increase the happiness of some of the inmates if children were separated from the adults, but if children are to be admitted, always to take care that two or more are staying in the home together. Only the other day I met a boy of about twelve who had just come back, and he was asked why he had come back so soon; the boy's reply was to the effect that the men were nasty to him, and that he had no one to play with. This needs no comment.

In a subsequent number I will endeavour to give you some particulars about Homes for pay patients.

Passim.

The "Prize-Day" celebration, on the 13th inst., went off very well. The sun shone, the band played, and the visitors walked about—and ate strawberries and cream. The residents regaled such a large number of their friends with the delicacy named, that we forbear to mention the total for fear we might not be believed. The only drawback was the unavoidable absence of Viscount Cross, who, however, as a token of regret, has offered a prize of five guineas, to be competed for according to the wishes of the staff. His place was ably taken by Dr. Vaughan. An account of the proceedings will be found in another column.

In these days of flaccid uncertainty upon all subjects of serious interest, when we are too proud and too afraid of being considered "dogmatic" (a terrible bugbear to the modern philosopher) to wonder at or revere anything, it is pleasant to read the thoughts of a man who was strong enough to despise these petty conventionalities of so-called "*scientific*" thought, and to think for himself after his own fashion. That is one reason why Dr. Moxon's "Philosophia Medici" will be welcome to our readers. Another reason is, that these reflections were written at the beginning of his career, and that we can trace the influence of his lofty aims and high sense of responsibility, upon his life and work as we know them.

Now-a-days we are too much under the influence of young-lady novelists, of the "life-is-not-worth-living" species. Terrible pessimists and cynics these, if they themselves are to be believed!

We fear—but stop, as the Yankees say, *right there! We* fear! In the name of common sense, why *we?* Am not I who write this—a very humble member of the community certainly, but one of yourselves nevertheless—"a man and a brother?" Why then should I be prating in this idiotic way, with my eternal *we—we!* like

a sucking pig that has barely learned to squeak? There is no reason, that I can see, for the editorial habit of talking in the plural number, except possibly sometimes in leading articles when one wishes to be quite impersonal—or the reverse.

There is nothing rational to be said for the fashion; it is customary, and there's an end of it. In the words of the song, slightly modified:

"It is enough that thou art thou,
And I am—*we!*"

IT is to be feared, then, that we Medical Students of 1887 (although, generally speaking, we think a very great deal of ourselves *as a body*) are in some respects rather a degenerate race. Do you remember a picture in *Punch*, not long ago, of two Medical Students? On one side was a type of the Student of to-day, a keen, earnest-looking youth, with a skull before him, reading for his very life; on the other side was his predecessor, of fifty years ago, a regular Bob Sawyer, with a huge meerschaum, reading a novel (or was it *Bell's Life*?), and reposing his feet gracefully upon the mantelpiece. To judge by the general air of his surroundings, this was more of a sportsman than a scientist.

THE change has been, on the whole, for the better no doubt, but there has been retrogression as well in some ways. We are now-a-days, perhaps, rather a less hardy race than we ought to be. We take our pleasures sadly, and, as it were, by proxy—like that Eastern Prince who, at an English ball, asked how much a head the dancers were paid for their gymnastics.

We have our little group of athletic men, who do their duty for us nobly, and generously allow us to share the glory. We go to the Cup Match to see our heroes play (sometimes), and come away feeling that we have done more than our duty towards earning the victory.

HERE, while we are on this subject, are the lucubrations of a disgusted septuagenarian on the Students of his youth and of to-day:—

STUDENT DAYS. A REMONSTRANCE.

BY AN OLD FOGEY.

Gay was the time, when in youthful exuberance
Thrilled the warm stream through the valvular flood-gates,
Gay too, its visions, of joyful futurity,
Mansions aërial!

Pleasant the haunts which we Guy-ites frequented then,
Pleasant each comrade of boisterous revelry,
Brave the wild spirit of ardent good-fellowship,
Devil may care-dom!

We did not hanker for decent nonentity,
Far in the wilds of a desert suburban;
Our spirits brooked not your orthodox Villa-dom,
We were Bohemians.

We did not scorn, with effeminate nicety,
Life in the midst of the scene of our labours;
Borough-ites we to the core of our being,
Trinity Square-ites.

Say! was youth younger, when I was a student?
Did the full pulses beat higher and stronger then?
Answer me, truly, Oh, wayworn, dispirited,
Sad generation!

Or is it Darwin, whose sombre philosophy
Darkens, too early, the gladness of being now,
Making young pessimists frantic to rise in the
Fight for existence.

Visions of failure come, fraught with despondency,
Phantom examiners, gaunt, irresistible;
Chaos and nothingness gaping to welcome you
Down to oblivion.

Leave, to the Germans, these fond metaphysical
Ravings, the nightmares of green hypochondriacs!
Spectres that fright you with poisonous fallacies,
Werner-ite madness!

Life is enough, and the gladness of living it,
Life and its duties, of love and solicitude.
Brothers, take heart! here is room for each one of you,
Room for your labours.

SURGERY EXTRAORDINARY. — The *London Medical Record* has an interesting account of an operation by Dr. Stelzner, of Dundee, for the removal of a needle from the right ventricle of the heart. The patient, a student, had attempted to commit suicide by piercing his heart. After twelve hours, dyspnœa, and a pericardial rub at the apex were the symptoms, and later the patient became much collapsed. Part of the fifth rib was resected and the pleural and pericardial sacs opened. The needle was felt, but, in the attempt to remove it, slipped back into the heart, which was beating violently. The operation was not carried any further, but marvellous to relate, the patient made a good recovery, and is at present apparently well.

PHILOSOPHIA MEDICI.*

REFLECTIONS AND NOTES

By WALTER MOXON.

1857 to 1869.

I.

Paradoxical but true, that the aim though future is always to achieve a past.

To the Physicians—And remember that they will trust you with their last trust, before they trust themselves to the Angels in the Great Unknown.

You will have to see men as the guides of their exit, and their power and their pomp may well become to you as indifferent, as their greed will make it scarce.

"Short is this life, and nothing in it worthy but to know and feel according to Nature. Be not depressed. Take courage. Short is life. Do thy duty. Be kind to others. Help them. This is the joy of life. Be kind. Think not of thyself. Be not envious of those who are kinder than thee with less effort than thou usest." This is the one enviable power; it is not cleverness but kindness I want. I cannot help envying the kind in heart. But strive on to be kind and just and useful to others, and forget thyself. Be not turned by any Philosophy to the over-cultivation of self.

If you would be wise you must do this impossibility; you must learn to sympathise with another all by yourself, without desire that the sympathy should be mutual. So that the sympathy is all your own activity, in your own power, measured by your own feeling, and so far your own that it shall remain as your own possession, to recall it, and reawaken with it all that gave you pleasure when it was fresh. It is to your own activity that you must reduce the standard of your feelings now. Let desire of sympathy in others be over, and sympathise out of yourself, in the activity of your own soul, without desire that the subject of it sympathises with you. You must learn to live without desire of anything out of your power.

In comparison with the great law of kindness to the sufferer, all our scientific literature is but expanded village chit-chat.

We all love Nature, but we too readily follow her steps into the darkness of the hidden place where dwells the secret of her wisdom and power. We stay from the pursuit of the few and small things that we can learn before the shadow of the great secret which we cannot learn. I have been so much attracted by what I cannot know that I leave unknown that which I can know.

Philo well said "Equity is the Mother of Justice." I will not undertake to say who is her Father, but she certainly carries the likeness and lineaments of Expediency.

All people live under some degree of pressure, the difference is but in degree. Nature does not endow live things so plentifully with muscle for nothing. The richest must at least take the trouble to breathe and feed. Let us then take work as natural, and run our cycle of it calmly.

The seat of the sense of the harmony of music must be near or in near communion with the regions of memory—how soft sounds of melody awaken the remembrance of former days from their slumber and teach us if it is pleasant *to be* it is heavenly *to have been*, and to visit the shadow scenes of our past enjoyments and interests and even sorrows, and breathe of their quiet soothing, for there is no weeping in the past, all tears are dry there, all the anxious are quiet from their labours and the weary are at rest. The order that reigns there is all like the harmony of the music of a great master, whose strains awaken it: *that* Heaven is full of singing not the less sweet for the minor touch of melancholy, and of praise (without cant) for the mighty influence whose presence, we feel, did bring us through, we now see, well. So, at rest, we sing our "Lieder ohne Wörte."

Rewards are positive things, like light and warmth and life, and order of beauty. Our punishments negative things, like darkness and cold and death and chaos. The greatest punishment of crime is the absence of the happiness of doing good and the nature of its memories.

Flowers, whatever their fruit, are all and always beautiful, but fruits are often bitter and nauseous, or tasteless and unsatisfying. So means and progress and the course of acquiring always have round them a cheering, blooming halo of interest, whilst results and ends and acquisitions often, nay, generally disappoint. How much of what we pursue is valuable no more than for the phases of feeling we live through in the course of its acquirement.

Every *animal* for himself. Every *man* for his fellows.

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* The series of extracts published under this title, are from the private note-books of the late Dr. Moxon. They were therefore written for private use and not for publication, but as many of Dr. Moxon's friends have expressed a wish that they would be published, Mrs. Moxon has consented to allow a few of the notes to appear from time to time in the GAZETTE. No attempt will be made to arrange them in any order, or to make them continuous; they will be published just as they were jotted down by the author.—Ed. G. H. G.

IN A TOMB.

I availed myself of the opportunity of being in Dublin lately to see the curious vaults beneath St. Michan's Church, which was founded by Michanus, a Danish bishop, in the year 1095. There is some peculiar antiseptic property in the earth and air of these vaults that acts as a preservative of the bodies, and long after the coffins have mouldered away their contents lie comparatively unaffected by time and the usual process of decay. The cause of this phenomenon remains unexplained, scientific people go and wonder and come away without offering any explanation. There is no question as to the bodies being embalmed, for some of them are comparatively recent and their histories are known. On the occasion that I went I was accompanied by a learned archæologist and an individual who, like a celebrated king of Spain, possesses a morbid love of tombs and the accompaniments of death. Each of us had his particular reason for the visit. The archæologist was troubled about the dates in a paper of his on the subject and wished to make a more careful examination of the place personally. The writer wanted to examine the condition of the bodies and see if what was said about their preservation was a fact; and, lastly, the horror hunter came to have a good gloat over a few ancient corpses and prod with his umbrella a centenarian cadaver or two. We pulled up at the gate of the churchyard. Everywhere were signs of dilapidation. A horde of dirty children played before the gate, and shrieked as only Irish children can.

We asked at the lodge near the gate if we could see the vaults. A consumptive looking girl in black volunteered to show us the sights, and fetching a candle and a bunch of keys conducted us to one side of the church. There were several large double iron doors to be seen, slanting from the ground upwards to the church wall. Our guide unlocked one and asked for our assistance to turn the heavy iron plates on their hinges. We swung them back with some difficulty. A pair of steps were immediately disclosed to view, down which our guide, candle in hand, went. Then we decended; I, as a medical man, being "used to smells," was requested to go first. The archæologist followed, and behind him, with a pocket handkerchief held tightly over his nose, the horror hunter!

The air was not unpleasant; a dry, bricks-and-mortar sort of odour alone was perceptible. Before us was a long passage about 6 feet high, on either side of which were small chambers filled with coffins. We went into one on our left. There was just standing room. At our feet lay three female bodies, which we were told were those of an abbess and two nuns. The integuments were quite brown, hard, and shrunken; the abdominal walls were elastic on pressure. The bodies were in a wonderful state of preservation. Around them were the remains of their coffins which had fallen to pieces with age. A pile of coffins lay against the wall beyond, and showing signs of breaking to pieces.

Behind us were two more coffins on the top of which was a skull containing teeth with gold stopping. The guide did not know its history. The archœologist appealed to me as a medical man to know when gold stopping was first introduced. Dates and statistics are my weak points, I changed the subject instantly. The horror-hunter then put some awkward questions in sanitary science to me, under the cover of his handkerchief. As his remarks were somewhat indistinct by reason of the cambric folds, I seized upon the excuse not to understand him! One can always say "What?" under such circumstances and pass on! In another vault we saw the coffins of the Leitrim family.

The entrance was protected by a massive door in which were two round apertures side by side. Our guide thrust the lighted candle through one of them and we looked through the other. The flickering beams were reflected by the silver coronets on the coffins and had a weird effect. On our left was pointed out the coffin of the late Earl who was murdered by his tenants a few years ago.

On entering another vault from outside, we saw a child's body with a yellow satin ribbon still round its neck. Passing from this, we were shown a vault containing a horrible array of bodies, limbs and portions of decayed coffins, all heaped together in confusion,

This state of things, our cicerone informed us, was due to the fact that the more ancient coffins beneath succumbed sooner or later to the weight of the new ones placed above them, especially if, as is often the case, they contained leaden ones, the result being every now and then a general collapse, when the pressure above caused the bodies in the coffins beneath to be squeezed out, and presented the weird and revolting spectacle that we saw of emerging arms and legs and tufts of hair, etc. Only at one place did we detect the slightest unpleasant odour, and that was from a coffin recently brought in.

It had been there only two months, and it was usual, we were told, to perceive a slight smell at first, but this soon passed off, and the process of decay seemed to be arrested.

There were many more vaults to be seen, but we thought we had had enough for one day in a tomb, and we went to linger in the beautiful cathedral of Christ-Church, where we left the archæologist correcting the verger in the matter of dates, about which he had got sorely muddled.

Who can explain the cause of the phenomena we saw? Until now it remains a mystery. F.G.V.

Sport.

UNITED HOSPITALS' SPORTS.

The twenty-first annual series of contests for the holdership of the Challenge Shield took place on Wednesday, July 6th, and resulted in another victory for Bartholomew's (who have thus won three years in succession) by 4 firsts and 4 seconds, to University 3 firsts and 1 second, Thomas's 1 first and 6 seconds, Mary's 1 first, and Guy's 2 firsts (the Hammer and Hurdles both falling to W. G. Mitchell) and 2 seconds

(Harrison in the mile and Prime in the 220). The day was fine, but not too hot; the company larger than usual, and the arrangements excellent. W. Kent-Hughes did good service to Bartholomew's, but, after an exciting struggle, was fairly run off his legs by Maynard, of Thomas's, who ran in the most plucky style and elicited rounds of applause. Notwithstanding a nasty slip at starting, W. G. Mitchell won the hurdles for us pretty much as he chose, but we were disappointed that he did not show more prominently with the weight. Prime and Harrison also did their best, but except these three none of our men stood a chance.

In the 100 Yards and 250 Yards Races Davies, of University, had matters all his own way, and aided by a favourable wind did very fast time in the former event, and he likewise landed the Wide Jump with the creditable leap of 19ft 10½in, and was second in the Weight Putting, but had no one to back him up, and could hardly be expected to win the Shield unaided. In addition to the Hospital events, an open Quarter-mile Handicap was on the card, and this resulted in an easy win for W. J. Purser, Belmont Harriers, who succeeded in getting home from the six yards mark in 52sec. During the afternoon Wellington's Light Cavalry Band played a fine selection, and added greatly to the enjoyment of the company. Mr. J. H. Morgan was starter, Messrs. G. R. Turner, A. A. Bowlby, and J. E. Lane were the judges, Mr. F. Richardson Cross was referee, Mr. S. H. Baker framed the open handicap, and Nat Perry took the times.

100 Yards Challenge Cup; first in each heat and second in fastest to compete in the final.—First heat: A. C. Davies, University, 1; F. Christie, St. Thomas's, 2; C. D. Leyden, St. Mary's, 3; G. W. Prince, Charing Cross, 0; Davies led all the way and won by a yard; rather less between second and third: time, 10 3-5th sec. Second heat: C. J. Prime, Guy's, w.o. Third heat, R. N. Martin, St. Bartholomew's, 1; J. H. Bryant, Guy's, 2; won after a good race by a foot, in 11 sec. Fourth heat: G. L. Hanwell, Charing Cross, 1; R. G. Hogarth, St. Bartholomew's, 2; won easily by a yard; time, 11sec. Final heat: A. C. Davies, University, 1; F. Christie, St. Thomas's, 2; C. J. Prime, Guy's, 3; R. N. Martin, St. Bartholomew's, 0; G. L. Hanwell, Charing Cross, 0; Davies again came right away and won by three yards; three-quarters of a yard between second and third; time, 10¼sec.

Half-mile Challenge Cup.—W. Kent-Hughes (holder), St. Bartholomew's, 1; E. H. Willock, St. Thomas's, 2; J. G. Wilson, London, 3; A. R. Savell, King's, 0; F. Disbrowe, Charing Cross, 0; R. A. Badger, St. Bartholomew's, 0; A. S. Gedge, St. Thomas's, 0; H. C. Barnes, London, 0; Hughes made all his own running and won by eight yards; Disbrowe occupied second place for five hundred yards, and then gave way to Willock, who defeated Wilson in their places by a dozen yards; Savell and Badger ran prominently for the first half of the journey, and then died away to nothing; time, 2min 2 4-5th sec.

Putting the Weight.—C. D. Leyden, St. Mary's, 33ft 3½in, 1; A. C. Davies, University, 32ft 9in, 2; E. Lange, King's, 32ft 5½in. 3; W. G. West, St. Bartholomew's, 0; R. F. Walker, St. Thomas's, 0; T. D. O'Sullivan, London, 0; W. G. Mitchell, Guy's, 0; H. R. C. Barber, St. Bartholomew's, 0; E. Walker, Charing Cross, 0; M. D. Macdonald, Guy's, 0.

120 Yards Hurdle Race; first in each heat and second in fastest to compete in the final.—First heat, S. L. Hinde, St. Bartholomew's, 1; G. D. Hanwell, Charing-cross, 2; E. W. Senior, St. Thomas's, 0; won easily by a yard and a half; time, 17 3-5th sec. Second heat: S. S. Wallis, Guy's, 1; A. Fagan, London, 0; C. E. Judge, St. Bartholomew's, 0; Judge fell at the eight flight, Fagan stopped, and Walls finished alone in 19 2-5th sec. Third heat; W. G. Mitchell, Guy's, 1; H. A, Julius, St. Thomas's, 0; the latter stopped on reaching the last flight, and Mitchell won by about sixteen yards; time, 19 1-5th sec. Final heat: W. G. Mitchell, Guy's, 1; S. L. Hinde, St. Bartholomew's, 2; G. D. Hanwell, Charing Cross, 3; S. S. Wallis, Guy's, 0; won by half a yard; two yards between second and third; time, 17 4-5th sec.

Wide Jump.—A. C. Davies, University, 19ft 10¼in, 1; R. G. Hogarth, St. Bartholomew's, 19ft 6½in, 2; C. J. Prime, Guy's, 18,t 11in, 3; J. B. Lemon, St. Bartholomew's, 0; H. C. Barnes, London, 0; S. S. Wallis, Guy's, 0; A. Fagan, London, 0.

220 Yards Race.—The three trial heats were walks over, and the final resulted thus:—A. C. Davies, University, 1; F. Christie, St. Thomas's, †; C. J. Prime, Guy's, †; R. G. Hogarth, St. Bartholomew's, 0; C. W. Newington, St. Bartholomew's, 0; Davies led all the way and won easily by three yards; a dead heat for second place; time, 23 3-5th sec.

Throwing the Hammer.—W. G. Mitchell, Guy's, 71ft 1; C. Brook's, St. Thomas's, 66ft 4in 2; C. P. Leyden, St. Mary's, 62ft 10, †; H. H. Baird, St. Mary's, 62ft 10, †; T. D. O'Sullivan, London, 0; J. G. Henniker, St. George's, 0; R. F. Walker, St. Thomas's, 0.

One Mile Challenge Cup.—W. Kent-Hughes, St. Bartholomew's, 1; A. T. Harrison, Guy's, 2; A. F. Stabb, St. Thomas's, 3; F. Disbrowe, Charing Cross, 0; H. W. Roberts, St. George's, 0; W. Bligh, University, 0; S. C. Wood, St. Bartholomew's, 0; F. E. Reynolds. London, 0; C. E. Salter, Guy's, 0; D. G. Halstead, London, 0; Wood cut out the work for a little over half a mile, and then dropped back. Hughes, followed by Harrison and Stabb, taking up the running, and the first-named eventually winning by 10 yards; thirty yards separated second and third. Time, quarter-mile (Wood leading), 1 min 9sec; half-mile (Wood leading), 2min 21sec: three-quarters of a mile (Hughes leading), 3min 31½sec: mile, 4min 41 4-5th sec.

High Jump.—A. E. Nuttall, St. Bartholomew's, 5ft 5in, 1; H. O. Davis, St. Bartholomew's, 5ft 4in, 2; R. F. Walker, St. Thomas's, 0; W. D. Macdonald, Guy's, 0.

Quarter-mile Challenge Cup.—First heat: R. N. Martin, St. Bartholomew's, 1; C. J. Prime, Guy's, 2; H. A. Julius, St. Thomas's, 3; J. G. Henniker, St. George's, 0; A. P. Walters, University, 0; won easily by two yards: three between second and third; time, 55 4-5th sec. Second heat: J. P. A. Geohegan, St. Thomas's, 1; W. Daniel, St. Mary's, 2; N. Instone, Guy's, 3; T. G. Brodie, King's, 0; C. W. Newington, St. Bartholomew's, 0; won by half a yard; three yards between second and third; time, 56 2-5th sec. Final heat: R. N. Martin, St. Bartholomew's, 1; J. P. A. Geohegan, St. Thomas's, 2; C. J. Prime, Guy's, 0; W. Daniel, St. Mary's, 0; N. Instone, Guy's, 0; H. A. Julius, St. Thomas's, 0; won by four yards; no third placed; time, 53 4-5th sec.

Quarter-mile Handicap, open.—Final heat: W. J. Purser, Belmont, H., 6, 1; L. Harris-Liston, T. H. and H., 15, 2; E. Sturman, Highgate H., 17, 3; A. G. Le Maitre, O.U.A.C., scratch; M. Neck, Finchley H., 2, 0; C. S. Woodd, St. Bartholomew's, 20, 0; Purser came away in the last straight and won easily by two yards, a yard between second and third; time, 52sec.

Three Miles Challenge Cup.—A. W. Maynard, St. Thomas's, 1; C. H. F. Battensby, St. Thomas's, 2; P.N. Jones, St. Mary's, 3; W. Kent-Hughes (holder), St. Bartholomew's, 0; E. O. Kingdon, St. Mary's, 0; H. G. Morris, Middlesex, 0; W. Watkins, London, 0; F. Disbrowe, Charing Cross, 0; A. T. Harrison, Guy's, 0; W. Bligh, University, 0; M. C. O'Brien, St. Mary's, 0; E. W. Brewerton, St. Bartholomew's, 0; W. G. Eccles, St. Thomas's, 0; E. J. Eastment, Guy's, 0; F. Johnson, St. Bartholomew's, 0; Jones led out with Eccles, Maynard, and Hughes for nearly three-quarters of a mile, when Eccles took the lead and showed the way for a quarter of a mile. At the mile and a quarter Hughes went to the front, and looked like winning easily, but after the completion of the second mile he tired, and Maynard going to the front the holder retired. At two miles and a quarter only the placed trio were left in, and they finished as above. Maynard winning by fifty yards; a bad third. Times, with leader's name:—Quarter-mile (Jones), 1min 13sec; ½ mile (Jones), 2min 25sec; ¾ mile (Eccles), 3min 56sec; 1 mile (Maynard), 5min 20sec; 1¼ miles (Hughes), 6min 39sec; 1½ miles (Hughes), 8min 2 sec: 1¾ miles (Hughes), 9min 26sec; 2 miles (Hughes), 10min 49 sec; 2¼ miles (Maynard), 12min 14 sec; 2½ miles (Maynard), 13min 42sec; 2¾ miles (Maynard) 15min 8 sec; 3 miles (Maynard), 16min 30 2-5th sec.

At the conclusion of the Sports, the Prizes and various Inter-Hospital Challenge Cups were distributed by Mrs. Sydney Jones:—

The Shooting Cup to	Thomas's.
Rowing	Middlesex.
Cricket	Guy's.
Rugby Football	Middlesex.
Association Football	Guy's.
Sport's Shield	Bartholomew's.

Though we have not won the Shield since '78, when, thanks to L. Stokes with the 250 and quarter, T. T. Shepherd with the two jumps, and T. A. Fraser with the shot, we secured 5 out of the 11 events, yet only one other Hospital can boast of having engraved its name as often as "Guy's," and none more often.

WINNERS OF THE SHIELD.

1867—Guy's.	1878—Guy's.
1868—St. George's.	1879—St. Thomas's.
1869—King's.	1880—St. Thomas's.
1870—King's.	1881—St. Thomas's.
1871—Guy's.	1882—St. Thomas's.
1872—Guy's.	1883—St. Thomas's.
1873—St. Bartholomew's.	1884—London.
1874—King's.	1885—St. Bartholomew's.
1875—St. George's.	1886—St. Bartholomew's.
1876—St. George's.	1887—St. Bartholomew's.
1877—Guy's.	

The Annual Summer General Meeting of the Football Club was held on Tuesday, July 19th. The President, Mr. N. C. Davies-Colley, in the chair. It was unanimously voted that in future two Honour Caps be given annually to the Association Team; and then the election of officers for the ensuing season took place with the following result:—

President	Mr. N. C. Davies-Colley.
Captain	Mr. A. D. Fripp.
Sec. and Treasurer	Mr. A. Allport.
Captain of Association Team...	Mr. E. J. D. Mitchell.
Sec. of Association Team	Mr. Hunt.
Captain of 2nd XV.....	Mr. Jenkins.

A very strong list of Matches has been arranged for the Rugby Team, including Richmond, Blackheath, Oxford, Cambridge, Bradford, Wakefield, Trinity, and London Scottish; and it is a matter of the greatest importance to our future in the Football field, that each Supporter of the Club should do his utmost to ensure the success of this effort to raise the standard of our play. It would be a step in the right direction if we could for once get a good muster at the opening match in the first week of October. It would be so much easier to get the Team well together if only the men would come and show themselves early in the season; and next season there will be several vacancies, which, from lack of good seniors, will give freshmen plenty of opportunity.

The Second XV. Card has also been considerably strengthened, and so has the Association List. By the bye, we must not let this opportunity go without offering a word of congratulation, thanks, and praise to Mr. H. J. Holman, who now retires from the captaincy of the Association Team after a four years' rule, marked by untiring energy, crowned with great success.

NOTICE TO SUBSCRIBERS.

During the Vacation Months (August and September) the GAZETTE will appear *Monthly*. No. 16 will be issued on Saturday, August 6th, No. 17 on September 3rd, and No. 18 on October 1st.

It will be seen that this arrangement is in accordance with our previous announcements, to the effect that 24 numbers of the GAZETTE would be issued during the current year.

WANTED, in August, QUALIFIED ASSISTANT in Country Practice to visit, dispense, &c. Indoor. Fair pedestrian, ride and drive. Apply, sending testimonials, references and photo (returnable). and stating salary expected, to A. M. SUTTON, Whitehall, Pontesbury, Salop.

Guy's Hospital Gazette,

AUGUST 6, 1887.

A VISIT TO THE DARENTH IDIOT ASYLUM.

A number of Guy's men availed themselves last week of the kind invitation of Dr. Fletcher Beach, the Superintendent, and were taken all over this interesting asylum. Our host first took us into the schools, where we saw about 90 children being taught under the kindergarten system. He explained to us that the treatment as a whole may be summed up as good feeding, exercise, teaching for those who show the least intelligence and capability for progress, and bromide for those with epileptic fits. To a casual observer the children in the school appeared much on a par with the ordinary run of young clod-hoppers at a village school. Certainly here and there might be seen a boy with a very large head, which we in our happy ignorance put down to hydrocephalus. Dr. Beach told us, however, that these were cases of hypertrophy of the brain, and might be diagnosed from hydrocephalus by the following points; in hypertrophy the head is not so large as in hydrocephalus, it is square rather than globular, the greatest transverse diameter in hypertrophy is above the superciliary ridges, whereas in hydrocephalus it is at the temples; the increased distance between the eyes seen in hydrocephalus is absent in hypertrophy.

All the children received into the asylum have their capacity for learning tried in the school, and if they make no progress they are relegated to the wards or cabbage gardens as they might be called. Some of the children were answering questions put to them by a female teacher concerning the difference between lunar and calendar months and leap year and ordinary years. Others were plaiting strips of coloured paper into mats, others were copying drawings, writing from dictation and doing simple arithmetical sums. We were shown several who wrote with their left hand, and these mostly held their slates upside down. Several when they began were looking-glass letter writers, whose writing was all reversed, but they had lost this accomplishment. The least intelligent were employed in threading beads or empty reels of cotton or string. To show us the remarkable want of intelligence present in some of the children, several were asked in turn to fit plates of wood cut in the shape of triangles, squares and circles, into corresponding depressions cut into a board, and it was a pitiful sight to see some of these children try earnestly, time after time, to make a triangle fit into a circular depression, and then look up at their teacher with a happy smile of complacency. The perseverance displayed in these attempts was very remarkable. Other children were quite or partially unable to match colours, although colour blindness is rare amongst idiots. We afterwards visited the wards, in one of which we saw a boy who greatly interested our friend Ananias, as he proved to be the original "drivelling" idiot. This word seems to be a corruption of dribbling; this kind of idiot does nothing but dribble saliva on the floor all day, and act as a fly trap in the warm weather.

Several wards were filled with these cabbages or fly traps, dressed and looking like children of 3 or 4, although some were more than 20. They sat in rows of chairs so constructed that they couldn't conveniently fall out of them. They had a decidedly vacant look, smiled and guffawed occasionally at one of the visitors, but paid no attention to the flies which settled in numbers at the corner of their eyes or on their lips. We saw a creature, 22 years of age, who had never been able to stand on his legs since he was

born, was incapable of feeding himself or of attending to any of his other wants, he gave an occasional grunt when pleased or hungry, but it was doubtful whether he recognised his attendant. After seeing several wards filled with these creatures a doubt began to arise in the minds of several of us as to the wisdom of spending so much time and trouble, to say nothing of money, on these wretched specimens of humanity, whether it wouldn't be better to let nature carry out her evident intention of stamping out these useless offsprings of, in most cases, a long line of drunken, phithisical and often criminal ancestors. During the long afternoon which we spent in the asylum we saw examples of nearly every kind of idiot. We saw several microcephalic girls, who, with their small heads, bore some resemblance to birds, and we were afterwards shewn the photograph of a microcephalic patient's brain, which only weighed six ounces. We were shewn a scaphocephalic idiot, whose skull was keel shaped with a ridge running from before backwards. We also saw several examples of paralytic idiots with congenitally paralysed and deformed limbs, and several very interesting sporadic cretins; two called Darby and Joan were wandering about hand in hand. They were not more than three feet high, and although twenty years of age did not look more than six or seven. Two, who were ten years old, looked about three. They had large heads and looked just like marked cases of mynœdema, scanty hair, blubbery livid lips and pasty complexions, and large flapper-like hands, and no thyroid gland. In each posterior triangle might be felt the characteristic fatty tumours.

We also saw examples of epileptic idiots, who seem to pass their existence in coming out of one fit to go into another. In most cases all these idiots are the descendants of habitual drunkards or the result of intermarriage in phithisical, epileptic or insane families. Syphilis seems to be a very rare hereditary cause of imbecility. Rickets, we learnt, was a rare disease amongst idiots. Many idiots evidently from the blueness of their hands had weak circulations, whilst others seemed to be unnaturally sweaty about the head. We were shewn several drawings of microscopical sections of brain cortex in idiots, which shewed that in idiots the ganglion cells have very few processes compared with healthy cells. Altogether we felt on leaving the asylum that we had spent a most instructive afternoon, in what was to most of us an entirely new subject. If it were only generally known what an interesting place an idiot asylum becomes when everything is carefully explained by such a painstaking host as Dr. Beach, we feel quite sure that many more Guy's men would avail themselves of the invitation which he gives every summer through Dr. Savage.

CASE OF PERSISTENT VOMITING.

Ann G., æt 54, was admitted into Clinical, under Dr. Hale White, for persistent vomiting and wasting; family and previous history good.

Patient, an intelligent woman, dated the commencement of her illness two years from admission, when she complained of vague abdominal pain, not sufficiently severe to prevent her from following her occupation. She continued in indifferent health until about three months before admission, when she first noticed she was losing flesh. Pain in abdomen, and more especially the right side, became more frequent and intense, and somewhat paroxymal in character, and at the same time she began to have persistent vomiting. The vomit was generally green, and never, as far as she knew, contained blood. Sickness became worse towards night, and relieved her for a while.

There was no such relation between the vomiting and the attacks of pain as to suggest biliary colic; moreover, she was never jaundiced, and motions and urine were normal. Had been treated for congestion of the liver, but had always been temperate, and had not improved under treatment.

On admission, June 25th, her face and limbs had a yellowish tinge, but she was not jaundiced; on flexor surfaces of both extremities, on abdomen, and in axillæ, there were numerous petechiæ; no abnormal pigmentation in axillæ or around areolæ. Her heart and lungs normal; P. 92, R. 24, Temp. 98. Abdomen very flaccid; resonant all over; skin inelastic and somewhat œdematous; slight, diffused tenderness at epigastrium and in loins; no tumour to be felt anywhere. No evidence of dilated stomach. Liver and spleen were normal; tongue furred; breath very offensive; optic disc and vessels small, otherwise normal. Urine quite healthy. During two following days patient was constantly sick after food or medicine, and got gradually weaker. Vomit was dark green in colour; sour smell; reaction faintly acid. On 28th became restless at night, and there was difficulty at times in keeping her in bed. Nutrient enemata and suppositories not retained. Rectal and vaginal examination discovered nothing abnormal.

On 29th she was much worse; restless and wandering. Sickness had ceased, but practically she had taken nothing since admission.

There was no muscular paralysis; pupils equal.

Patient gradually sank and died at midnight.

From a diagnostic point of view the interest lies in the absence of any definite train of symptoms on which to base an opinion as to the nature of the case. The absence of eye symptoms negatived the possibility of a cerebral origin, and the one physical sign in the abdomen—slight, ill-defined tenderness—afforded little help in that direction. The colour of the patient, noticed both by herself and friends as having developed since her illness, suggested malignant growth somewhere, but was unaccompanied by any very marked wasting. Addison's disease of course was excluded.

Post-mortem.—In the abdomen a carcinomatous growth was found reaching across and originating in the pancreas. It extended as far as the suprarenals. There was no ulceration or thrombosis in any of the neighbouring vessels, although they were embedded in the growth. About six inches below the duodenum the intestine was constricted by peritoneal adhesions, just admitting one finger. No secondary growths anywhere.

Notes by Dr. Hale White.—Microscopically, this growth was seen to originate in the pancreas and to be a scirrhus cancer, which had spread into the connective tissue around the colliac axis. It had invaded to a slight extent the suprarenals and semilunar ganglia; but although there were very few epithelial cells actually within the ganglia, all the nerve fibres were degenerate, and hardly any nerve cells were to be seen. This was probably the result of the pressure of the growth upon the nerves. The head of the pancreas was free, and thus the absence of jaundice was explained. The points of interest about the case are—first, the rarity of scirrhus of the pancreas; second, the freedom of the head of the gland; third, the resistance of the nerves to actual invasion by the growth; fourth, the absence of secondary growths; fifth, the absence of any signs indicating the disease, for the vomiting may have been due to the binding down of the duodenum, and the pain was but slight.

NOTICE.

Having, up to the time of going to press, received no copy from our clinical editor, Mr. E. H. Starling, we regret that we are unable to insert any "Pathological Notes" in the present number.

RASAE ASPERGILLI.

Being Shavings from the Log of Mr. L. Epispasticus, late Surgeon to the s.s. "Aspergillus."

As it is within the bounds of possibility that there may be other men more ignorant of nautical matters than myself, I am tempted to offer them these rough reflections upon my experiences as a ship surgeon. The amount of gratitude I ought to obtain for such valuable hints as can hardly fail to be thickly strewn among these negligent observations it is impossible, as well as useless, to discuss now—resembling the diseases of the pancreas, of which Bristowe says, after pointing out their undiagnosability, that the discussion of their treatment would be waste of time to enter upon.

There were no feelings of peculiar complexity which induced me to cast myself abroad on the restless ocean; my predominating motive being the platitudinarian one of impecuniosity. Therefore there will be among my interesting pages nothing heroic, or romantic, or sentimental, or learned, or in any other way to the gush-and-glory-thirsting-youth-who-may-skim-these-commonplace-notes-attractable. That is a very fair illustration of the silly way in which Germans and other nations build up those ponderous words which indicate abstruseness to, while they paralyse with wonder, the vulgar. In reality these mountain-range verbosities show the weakness of a language, the true strength of which should lie in smoothness, ease of construction, and simplicity of conprehension. English is a long way ahead; notice mine.

Well. One of our staff very kindly gave me a letter of recommendation to the Medical Superintendent of the Great Ocean Puff-puff Company, which I forwarded with a letter of application for any vacant ship surgeoncy. In two days I was lucky enough to receive a notice, stating that I was appointed to the good ship (that is the proper mode of description, if the memory of boyhood's novels serves me right) *Aspergillus Pulsatilis*. I forget how many tons, but she had three masts. I was to repair—"repair" is good style, *haut ton, not bon mot*—to the office at Liverpool in two days to sign articles, and sail the following Saturday. I did not know what signing articles was, thinking that only clergymen had to do it; but I was agreeably surprised to find that, after it, I could draw a month's pay in advance, that is, bar one shilling; the nominal arrangement being that the Company will lend you so much upon the security of your wages, though they are not allowed to pay them in advance by law. I was very favourably impressed with this first exhibition of business tact on the part of shipowners, and myself supported the system. The next point of importance was clothes. The superintendent informed me that the voyage was to China, and would occupy about six weeks either way. In the tropics it is often warm, and no washing can be got done till we reach Shanghai. Hence a great outlay in "whites." I ordered fifteen pairs of white canvas trousers, and two dozen canvas shirts, taking two dozen linen ones also. Canvas is much the coolest thing to wear, under any circumstances. Much cooler than nothing at all. Other things recommended were: Deck ("gymn") shoes; a deck chair; pyjamas; a helmet; a serge ordinary suit; and a nautical officer's cap. Those who are likely to do any visiting at ports of call had better take dress; the English colonists dress everywhere for dinner as at home. Old hands take many luxuries, such as mosquito nets, &c.; but these are not proper for the neophyte. I wished I had a good many more shirts down in the Indian Ocean. Jackets, as I ought to have mentioned, were ordered with the trousers. They are made with a military style of collar, standing straight: so as to conceal, usually, the absence of a shirt, in the same way as gravity of demeanour hides, according to Rochefoucauld, the defects of the mind. He must, I have often thought, have been well acquainted with the leading members of our noble calling of that day—they have not greatly altered since. Is it generally known that our term for *Podagra*, to which he was a martyr, was derived from the admirable smack—*goût*—with which the twinges of his complaint made that great man's observations poignant? The whole subject of taste is intimately connected with shirts and controversy. *De gussetibus non disputandum:*—

"Seam, gusset, and band!"

Jackets will probably be mentioned later on.

After attending to my outfit I scoured about the country to say good bye to my friends. It was a source of great enjoyment to me to drop in casually upon acquaintances, especially old lady friends, and in answer to their query, "Well, and what are you going to do next?" to say in a commonplace sort of tone, "Oh, I don't know really, I—ah! yes (yawning)—I *have* settled—to go to Hong Kong, in a day or two," and watch the effect. Hong Kong represented to them, as it did to me, the end of the earth almost, a very vague sort of existence indeed. By dint of talking very negligently about long distances, I began to feel myself almost, in

anticipation, an old traveller. It is really curious what misty ideas stay-at-home people have about "foreign parts:" and what a breadth a little travelling gives to stagnant habits, and dull imaginations. Although bound on a very common trip, in a very commonplace manner, yet the expectation of it stripped off all the recent layers of incepta from the idealogical stores in my cortical convolutions, and brought to light the primitive streaks deposited in boyhood's days, where, not being a very erudite boy in history or geography, Marco Polo lay alongside Cortes, and the shoemaker who walked all over Europe into Africa, and Livingstone and Catlin waltzed about with Lord Macartney's embassy to China. Now *I* had not got to explore strange lands, or savage tribes, to face perils of ocean, or in any other way evince the heroism of endurance. But there was in me a mild reliquary sensation of all these, and I came to the conclusion that human beings have exploration left still, like the pineal gland, that vestige of a cyclopian single eye, that once glared on the top of our heads like a binnacle lamp among their native intuitions, and experience has since proved to me that the spirit of moving restlessness, once aroused in one, becomes increasingly difficult to lay. While motion is the very essence of life, perhaps it is a sign of more vigorous vitality to rejoice in these voyagings, motions of a larger amplitude; and so we trot and swarm and flutter round our twenty-five thousand miles of little globe, like aphides on a rose bud.

Digression.—I am not going to talk about digression like other people. It is, while every life reflects in itself, on good introspection, a counterpart to nearly everything outside, in mood, and thought, and action, the very gist of all the books that were ever written: but as a stock for soup to dilute a narrative, the discussion of digression itself is clearly played out. This is a voluntary race between me and the reader—*ego et rex meus*—I shall go as I please.

(To be continued.)

On Coloured Hearing.—This phenomenon consists in the faculty certain persons have of receiving a sensation of colour at the same time as an auditory sensation when sound strikes the ear. Generally high notes produce sensations of brilliant colours, and low notes sensations of dark colours. The coloured image is projected outwards to the person, or instrument, which produced the sound. This peculiarity has been noticed in several members of the same family. One of numerous theories of its causation is that in these persons some nerve fibres from the ear go to the centre of perception of the optic nerve.—W. Ireland, M.D., in the *London Medical Record.*

Passim.

The *Hospital Gazette* (not the Guy's one, of course) being, perhaps, rather short of scientific or literary contributions, has lately been indulging in an ill-natured sneer at the expense of the Guy's appointments. It appears that a Guy's man (well known to many of our readers as a recent house physician) had applied for the post of assistant-surgeon to Westminster Hospital. In one of his testimonials, or elsewhere, it was stated that he had held the post of full dresser here—"a very responsible position, and one which is considered ('*by whom?*' asks our facetious contemporary) as being equivalent to that of house surgeon at many other hospitals." The *Hospital Gazette* scribbler genially invites the attention of his readers to this statement, which he is good enough to consider, if not true, at least happy, or, in his own erudite and scholarly language, "*bene trovato.*"

The malevolence of the above attack upon our prestige is too palpable to require comment, and certainly deserves none on any other grounds that we can discover. But we were of opinion, hitherto, that applications for staff appointments were usually treated as confidential by their recipients, and we would like much to know how the above little anecdote found its way into the clutches of our lively and satirical friend, and having arrived there, why he did not remember the usual reticence prescribed by professional etiquette in such cases, and observe it.

The depreciation of our dresserships implied by the quotations we have given may be interpreted by our readers as being the result, either of total ignorance of the nature of the appointment, or, on the other hand, of wilful misrepresentation—a scarcely more serious crime in a

writer for a journal of any pretensions to respectability. But it is, in either case, not without an obvious bearing upon a subject which has been already treated of in these columns, and by our correspondents, and which is becoming quite a burning question at Guy's—viz.: the nomenclature and method of our appointments.

There is nothing of very general interest to talk about in Passim this week in connection with hospital domestic topics. The place is looking very empty already, and men are rushing off every day to seek new health and energy in more congenial climes. But, unfortunately, people will persist in being ill at all seasons of the year, and so a certain sprinkling of us remain, perforce, in the land of fogs and germs. Moreover, there is a certain grim, unpleasant object looming in the mental horizon of many of us which assumes, day by day, a more forbiddingly obtrusive outline, and an aspect of threatening implacability. The name which this bogey bears in common parlance is none other than "*Final M.B.*," and he is a bogey, or vampire, whose habits entitle him to be treated with the utmost respect and consideration.

Hospital News.

INTERESTING CASES IN MEDICAL WARDS.

Philip. Private Room—Thoracic Aneurysm treated by Electrolysis.
11 ,, Malignant Growth in Neck and Mediastinum.
18 ,, Severe Epitaxis from Salicytate of Soda.
3 Stephen—Abdominal Aneurysm.
10 ,, Sarcoma of Pelvis.
11 ,, Renal Calculus.
12 ,, Second Relapse of Syphoid.
20 Mary—Splenic Leucocyhæmia.
39 ,, Pyonephrosis ? Tubercular Incision.
41 ,, Hydatid of Liver, Drained
28 ,, Phthisis or Bronchiectasis.
50 ,, ? Meningitis.

INTERESTING SURGICAL CASES.

14 Accident—Crush, Fracture of Leg, Amputation of Thigh.
25 ,, Crushed Foot, Traumatic Gangrene.
7 Cornelius—Severe Cut Throat. Division of Epiglottis.
13 Martha—Ovarian Tumour with Ascites.
19 ,, Spinal Curvature from old Lung Disease.
15 Lazarus—Stricture, Recto-vesical Fistula.
1 Luke—Fibrous Tumours in Abdominal Wall.
20 ,, Growth in Rectum.
5 Dorcas—Webbed Fingers of Left Hand.

The following is a List of the Succesful Candidates in the recent examinations:—

FINAL EXAMINATION FOR THE ROYAL COLLEGE OF SURGEONS.

W. Fisher.	Reeves.
Bearblock.	McIlwaine.
Maisey.	Marriott.
Blachford.	Carter.
Clowes.	Campbell.
Aymard.	Robinson.
A. C. Roberts.	

FINAL EXAMINATION FOR THE ROYAL COLLEGE OF PHYSICIANS.

Kelbe,	Medicine.
Thomson,	,,
W. Fisher,	,,
Carter,	Medicine and Midwifery.
Pearse,	,, ,,
Lumley,	Medicine.
Gilford,	Medicine and Midwifery.
T. Holman,	,, ,,
N. Phillips,	,, ,,
G. Gordon Phillips	,, ,,

The Hospital Library will be closed to-day, August 6th, at 3 p.m., and re-opened on Monday, August 29th, at 9.30 a.m.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Sir,—I once made a suggestion that there appeared to be a close resemblance between the processes of inflammation and digestion in the animal body, in which you were good enough to evince some interest, and in reply to which I beg to restate the matter for your consideration.

The processes of digestion and assimilation run closely together. Plants may be said to assimilate only (though notable exceptions occur), animals to digest, the difference being due to the fact that the assimilation of animals is preceded by the ingestion of the material to be assimilated, in a form in which it cannot be directly taken up by the cells, either on account of its form, bulk, or molecular structure.

The process of digestion seems to consist of four primary stages: (1) The getting of the material inside the body; (2) the preparation of—the acting upon—the food, by secretions from certain cells; the removal of such parts as can be taken up by the cells, and (4) the evacuation of any remaining particles. In the amoeba, any portion of the body can perform the offices of digestion; in the hydra the endoderm does it, though I believe it has been shewn that the ectoderm can also perform the same process if the body be turned inside out. In certain plants (*e.g.* the Anacharis elodea) the protoplasm of all the cells can digest germs that force their way into it, but in higher animals there has been a special tract long differentiated for this purpose, though even in man many other parts of the body can absorb foreign matter placed in contact with it, *e.g.*, a carbolized catgut suture.

The plan of digestion in animals is, that the irritation produced by the presence of foreign matter in the alimentary canal shall cause certain of the cells lining it to throw out fluids which act upon such matter, rendering part of it soluble, and that then some of them shall absorb as much as possible of the resulting fluids, while leucocytes flock to the digestive surface, and, in the manner of the amoeba, eat all they can of the foreign matter, retiring to split up and yield their contents to other cells; and lastly, that the presence of the indigestible remainder shall cause sufficient stimulus to result in its evacuation.

Now, sir, slight inflammation, ending in resolution, I would compare with normal complete digestion; and inflammation resulting in suppuration, to the process of excretion in the alimentary canal.

The immediate cause of both the digestive and inflammatory processes is the placing of dead or foreign matter in the body. In the former case it is usually matter obtained from without, in the latter it is often formed by injury to—destruction of—part of the body itself: and the essential result of the reflex processes set up by its presence have for their object, in each case, the removal of such dead matter by one or both of two separate methods, viz., (1) an effort to assimilate the foreign matter, and if this fails, (2) an effort to evacuate the same. The first of these attempts has for its purpose one of two objects, either (a) to reap benefit by the appropriation of the foreign matter to the purposes of the body, or (*b*) to avoid harm to the body, which would result from allowing such foreign matter to remain where it is. The second of these efforts has for its object simply the latter—(*b*)—of these two purposes.

Now normal, complete digestion, and simple inflammation ending in resolution, are similar attempts, in different tissues, to assimilate foreign matter for the benefit of the body, and it is because the benefit so derived differs in the two cases—see (*a*) and (*b*)—that the fact that the two processes are identical is hidden from us.

In each of these two processes, foreign, dead, or injured matter coming into relation with living matter, starts the process. This is followed by determination of blood to the part, hyperæmia, congestion, heat, and swelling, locally, with a general rise of temperature. Exudation from the cells surrounding the foreign matter occurs, and the exuded fluids come into contact with the "food" to be assimilated. (Here, sir, I would remark that it is because a certain alimentary tract of cells has continually, for ages, been called upon to throw out upon a particular class of foreign matter, that it has come to secrete and excrete certain substances which have a suitable action upon the matter they are most used to come in contact with; but I do not think it can be disproved that all parts of the body which are liable to inflammation are also able to pour applicable solvents into those particular forms of dead matter that they too are most liable to be brought into contact with. At any rate the result seems to justify the assumption.) These fluids remain in contact with the foreign matter. Leucytes flock to the part, coming into direct contact with the ingested material in the villi in digestion, and in

the connective tissue in inflammation. They feed upon the foreign matter and return into the system, where become disintegrated. The fluid, and what it may have in solution, becomes reabsorbed. The process has ended. The foreign matter has disappeared. Such is the process of complete digestion in the alimentary tract, and of simple inflammation in other tissues.

The process of excretion, comparable with that of inflammation resulting in suppuration is the next attempt the body makes when the former process just described fails to get rid of all the ingested material. The continual necessity in the history of the race, of dealing with such matter, caused it to become a contingency very clearly provided for in the history of the individual, and the ending of the alimentary tract in a sinus communicating with the exterior of the body, became an early, normal embryonic growth for a normal function.

In inflammation of other parts of the body not regularly called upon to deal with matter which cannot be assimilated and removed, from the nature of the cause, no such early embryonic change competent to deal with the difficulty can be arranged. But the attempt to assimilate *having* failed, the very same thing occurs, if the effort of the body be successful, as soon as the necessity arises. And it is worthy of notice that as in the lower organisms the motive power driving the excreta along the alimentary sinus, is fluid that has been either swallowed or secreted in large quantity, so, also, in the inflammatory process, a quantity of fluid is thrown out, which its pressure, forms a sinus leading to some surface where the whole fluid, often carrying with it the foreign matter, is discharged. A temporary lower bowel and anus is formed.

Inflammation only takes place in organisms having a well developed digestive system, and vice versâ, because the two processes are dependent upon this peculiar capability of the social organism in which they occur, viz., to concentrate a large quantity of living matter, not previously there, upon any point where dead matter shall appear, either in a tract set apart for such a process, or in other tissues, where its occurrence is an exception. Thus plants do not digest nor inflame, and if dead matter, more than can be dealt with by the local living tissue, appears in its midst, mischief is done and the part dies.

Now, Sir, I must not tresspass further. I have simply suggested a line of thought, a way of thinking of these two processes together, which may have its benefits. I am not blind to the great differences between them, but it is not with these that I am at present concerned.—I am, Sir, yours, &c.,

HAROLD DIXON.

To show that the two kinds of benefits received are still fundamentally connected, it is but necessary to to remark that the amoeba and the leucocyte eat for the same selfish purpose, and that the latter probably grows equally fat, whether he dines upon mutton fat in a villus, or off disintegrated cell matter in bruised connective tissue. In each case he serves his country in helping himself.

SURGERY VERSUS MEDICINE.

It is curious to note in one's journeyings to and fro, in hospital life, how very evidently the mass of students falls into two great natural orders, quite separate and distinct.

On the one side we have the men who prefer Medicine to Surgery, who are content to accept its humbler and more obscure methods of doing good (mind, I don't for a moment admit that it doesn't do quite *as much* good in the aggregate as surgery), in consideration for its wider fields of speculation, and greater powers of stimulating and employing the activity of mind and thought.

On the other hand, we have the rather larger class of those who delight to call themselves (and with justice) "practical men," men who love the tangible, and despise abstractions, as being a palpable ruse to conceal ignorance, an invention (*sic*) of the devil; men who love surgery, as they say, because its advantages are so obvious, because when a surgeon sees anything in his patient which offends him, he can snatch up a scalpel and "*cut it out*," and forthwith that patient is cured (*N.B.*, or, peradventure, killed).

It is only fair to the other side to add this parenthesis which is by no means intended as a reflection upon the skill of our coming surgeons, but merely as a statement of one slight drawback to our recognition of their claims to superior utility.

I think everybody will admit the existence of these two great divisions of the student mind, because the fact is so very obvious. If it were not so, there would

be no sense in the arrangement which confines the attention of our picked men to one or other branch of the profession, when they have been recognised as showing sufficient special aptitude to lay claim to a position on the staff of one of the great hospitals. There would be no sense in the distinction between surgeons and physicians.

It is not so much because the whole subject of our studies is too large to be comprehended, in its higher aspects, by a single mind, that this division has been recognised and adopted, as because the two elements of the Healing Art are so entirely different, and have been found to demand mental organisations of such distinct types in those who are to attain to real excellence in either branch. A typical Surgeon and a typical Physician are as opposite as the antipodes, or as the positive and negative poles of a magnet. That is why they, as a rule, get on so capitally together—or so it seems to me. They have at once so much sympathy as to aim and object (the relief of suffering), and as to the training they have undergone, and yet so very little actually in common with one another. Then, they are so dependent each upon the other, that there is the lower motive of self-interest to strengthen the bonds which unite them. You will find, if you have not already discovered the fact, that it is the simplest thing in the world to diagnose between these two orders of mind. After talking to a man for five minutes on indifferent topics, I will engage to tell him whether he feels, on the whole, more drawn towards medical or surgical practice, if he were to engage in either exclusively. Just run through the list of your own friends, and you will see how easily you can decide to which category to assign each individual of them.

Of the surgical mind, as of good oratory (according to Demosthenes), one may say, What is the first essential? —*Action*. And the second?—*Action*. And the third?—Still *Action!* The surgical enthusiast is a man of strong will, and generally of strong physique and digestion. He has powerful hands, yet can use them with nicety and delicacy when he wishes. He loves anatomy, and was a good dissector; to physiology he was, perhaps, less partial, or avoided the chapters on the nature of the functions of the mind.

The medical enthusiast—but I need not proceed. You know him well enough. The P.M.-room is his most cherished resort; he almost loves the atmosphere of it in his ardour—but not quite, perhaps. I am afraid this characteristic is liable to misrepresentation by the partisan of the other faction. But it is too marked to be omitted; and besides, I do not write as a partisan. "But," you say, "all this is very unsatisfactory, even if it be true. Most of us are going to become general practitioners, and as such must be prepared to deal with our patients surgically or medically, as occasion may arise."

I own that this is so, and that we must be, as Erichsen puts it, "eclectic" in our methods; but—the fact remains. Of course either class may cultivate a taste for the methods of the other, and come to acquire in time almost as much interest in them; but, still, there is an effort. It is comforting to know that such a great philosopher as Lord Bacon was at one with us in only attaching importance to natural predilections where they are very marked indeed. In advising parents to choose an occupation for their children at an early date, so as to accustom them to the idea of it, he says: —"And let them not too much apply themselves to the disposition of their children, as thinking they will take best to that which they have most mind to. It is true that if the affection or aptness of the children be extraordinary, then it is good not to cross it, but generally the precept is good: *Optimum elige, suave et facile illud faciet consuetudo.*"

C. J. W.

Syphilitic Hemiplegia.—Dr. Julius Althaus is of opinion that there is one pathognomonic symptom by which syphilitic can be distinguished from ordinary hemiplegia, i.e., great exaggeration of the deep reflexes, which is present in the syphilitic and absent in the idiopathic form. This only applies when the reflexes are normal on the healthy side.—A. Cooper, in the *London Medical Record*.

Injections of Pepsine in the Treatment of Tumors. —Dr. Morse, in The Medical Register, speaks highly of the use of pepsine injections in the treatment of tumors. After failing with several varieties of pepsine, he finally succeeded when he employed Jensen's crystal pepsine diluted with three times its weight of distilled water. Five injections sufficed for the digestion and removal of a fatty tumor.—*London Medical Record*.

NOTICE TO SUBSCRIBERS.

During the Vacation Months (August and September) the Gazette will appear *Monthly*. No. 16 will be issued on Saturday, August 6th, No. 17 on September 3rd, and No. 18 on October 1st.

It will be seen that this arrangement is in accordance with our previous announcements, to the effect that 24 numbers of the Gazette would be issued during the current year.

PHILOSOPHIA MEDICI.

REFLECTIONS AND NOTES

By Walter Moxon.

1857 to 1869.

II.

We are now making ourselves what we cannot cease to be, and ceasing to be what we never can become again.

The direct education of the mind and spirit is a practical end, well worth all the toil that can be bestowed upon it.

Knowledge and command of language are two totally different things.

Descriptions are like shadows, only outline, and even that dim and full of obscurity. How like is mind-history to the geologic course of the earth, things entering and fretting away things that be there, so that our knowledge of past things soon becomes partial and fragmentary, or takes altogether a new shape. This great changeability, too, is not obvious, and in either case may long be unnoticed; so that a doctor seeking after his opinion is like one of the ancients consulting the shadows in Hades.

In watching the simple "Proteus" gliding on without shape, or rather moving along by, as it were, flowing out of its former self a pellucid piece of matter which has nothing but outline, and that is perpetually changing, we seem to be face to face with the mystery of life, yet just in the same degree as the creature form is simple and its substance clear does it cause the vital power to become dark and obscure—impenetrable, inscrutable mystery. Life power in a limited space—that is all we have, yet all the functions of life are there—moving by a force arising within it, taking into its body organized substance, and then converting it to supply material for its sustenance and growth, independently passing about in seeming search after food, sensible to light, yet without parts, without structure, without difference, throughout clear, homogeneous and transparent—"it is the glory of God to conceal a thing"—and we nearest can approach Him here, for we almost see Omnipotence in this universal power. Here is complete independence of all rules of shape and conformation. There are no portions of its body to be preserved in proper form; here is complete independence of all conditions of structure; there is no arrangement of compiling particles to be maintained; of all internal conditioning the amœba appears to be free and independent. So much formless material, with no more elaborate coat than its surface, yet in relation to the circumstances in which it is placed a perfect and complete animal.

Gladly welcome every thought that is your own; it is a gift from Heaven. Never let it pass to seek for better in the productions of abler minds; their thoughts cannot be yours until your own mind has thought up to them. In the creation that is going on in you now the work time will pass and the rest time will come. The active time of the mind of the body is its forming time. It remains, after about twenty-five years, much as it was. It keep only such powers as it has acquired, and if you are to raise up for yourself a sphere of contemplation for the passive time of elder age that shall be worthy of a man, then you must not neglect the power of original thought, that will early wane if it is not employed, but, like your other powers, will increase in the use; otherwise you will cool into the common sort of person, who seeks reform of externals, and lose the renovating power which from within throws into active fitness the subject of your labours.

To be low is a matter of station; it is not fault. *To be base* is to be low in motive, and may be incidental unhappily to some low stations; but to have low and grovelling motives when the place you fill demands high and pure motives, that is *to be vile*. Such is the meaning of the terms—look to it. To take a position that demands of you high motive involves responsibility. If a man looks only in our sacred calling to how he may extract fees enough from his neighbourhood to live upon, then, though politeness may hush the word that honesty could not deny, he must be written down vile.

Science differs *toto-cœlo* from philosophy; it tends to *largeness* of acquisition as its great boon. Philosophy to *height* and *goodness*. The one reaches expansion, the other culmination. It is very doubtful whether the largest science produces the best philosophy.

One self-evident thing, these, our multitude of guides, are always forgetting, and that is the short, pithy aphorism of the "Father of Medicine"—"Life is short! They crowd us with very good and excellent things—spiroscopes, stethoscopes, urinometers, opthalmoscopes, sphygmographs, laryngoscopes, auroscopes. But what lifetime of industry can embrace them all. Does anyone know them all? The medical world is full of the professors of fragments of knowledge; they don't understand each other; let them give us something more within our grasp, or rather let us, in self-protection, turn respectfully and determinedly to know what we can know, thoroughly and consistently, and evenly, as men who must be ready to face the duty of dealing with any disease at any moment. I fear that I say what is very true when I say that with all the monstuous growths of special knowledge that rise into place and power for their happy possessors, there are fewer men now than formerly who take a sound general knowledge of the clinical facts of disease. We are over deductive and we are over nice in distinctions whilst we are not careful to make our distinctions harmonious in their bases. I say that when the mass of knowledge in any craft or profession grows into a greatness larger than is in the capacity of the individual followers of that craft to embrace actively, to put into motion and to use, then a crisis has arisen in that craft, a revolution is near. That revolution may be a triumph of progress or it may be a return to the same darkness out of which the knowledge has laboriously emerged, and the criterion that shall adjudge, the crucial event that shall determine, which of these shall result, is this, Whether or no at the time of such extension of the craft beyond individual capacity, general laws are found which place it within power to know in principle what in detail we cannot follow. Can we say that it is so in Physic?

The philosophy and the religion we need is that which shall carry with it the kindest feeling, and yet not need the largest reason.

A miserable husk—the empty tomb of departed hopes. Then hope no hopes; see that the good now is enough.

Some are more together when they are apart—such people as repress all in their nature which can combine socially.

Why excelsior? You need not look higher than earth to find your *human* duty.

The stoic position seems to be this—that despising all things is a sort of royal road to the same end as possessing all things, the effect of which latter is indifference to what you possess.

The sight of a distant light will guide when it will not illuminate.

No more yearning. Have you not seen that it has not rest that responds to its unrest. Its promises are ever broken. There is rest in the present, wherever you are and whatever you are doing, if only you will be content with the present activity, and if you will cease looking around for praise, and leave the future to God.

One man learns as a child learns his mother tongue—as by nature. Another learns as an unwilling schoolboy learns German.

The man who is guided by reason only is far from God, who made us not reason separate from feeling, nor feeling separate from reason, but reason feeling—sympathetic reason. Reason pure is devilish. Milton was right in setting his devils discussing fate, foreknowledge, etc., in their fiery retreat.

If I looked to means the ends would come; but as I look to ends the means won't. Ends don't make means.

Like the boughs of trees, that turn upwards, because experience has given them hope.

Look back and see how incompletely you live each day of your life.

The mystery of pain is solved when we see that the sufferer does not suffer as we think he suffers, and one thought on his pain is as much better than we conceive in that it is in us the source of sympathy as it is worse than the reality of what he is enduring whose suffering we witness. If there were no pain there could be no sympathy, and sympathy is the essence of goodness, as the self, which has to endure, is the essence of badness.

Hinton, when he puts it forward that we are alleviating others pain, surely does not see rightly. Is it not rather that it saves them from a comparable pain? And perhaps this is true also of that Christianity he touches on,

CARMEN RURALE.—A VACATION IDYLL.

By Mus. Urbanus.

From the city of vapours I fly
In a glow of sweet anticipation,
To rest 'neath a balmier sky,
The happiest man in creation.

For, marred by the friction of care,
Are the intricate wheels of my life;
I am weary of breathing foul air,
And sick of the turmoil and strife.

A cynic, a scoffer, whose jest
Is the world, and its wisdom and truth,
In peaceful seclusion I'll rest,
And renew the fond dreams of my youth.

What rapture, what bliss will be mine!
Down there in the heat of the day,
'Neath a canopy green to recline,
And idle the moments away.

To be lulled by the murmuring breeze,
And the odours it rises to shed,
By the tremulous hum of the bees,
And the carol of birds overhead.

To wander, by meadow and stream,
Out into the dim far-away,
Absorbed in a rapturous dream
As bright as the promise of May.

Through hamlet, and meadow, and lane,
By the margin of whispering rills,
Till the glory of sunset again
Glows over the westerly hills.

Then, fronting the gleam in the skies,
Through the gathering darkness I'll roam,
To the gladness of welcoming eyes,
For the restful contentment of home.

And then—'tis a burden indeed,
Well worthy a tunefuller lyre,
Sing hey! for the fragrant weed,
Sing ho! for the favourite briar!

O Goddess! that lurk'st in the bowl
Of meerschaum, and briar and clay,
What pleasures can gladden the soul
Like those thou bestowest each day.

O never, in sorrow or grief,
In famine, bereavement or pain
For thy magical spell of relief
Thy votaries woo thee in vain.

From thy scent-laden cloud, as it wreathes
Strange forms of wild beauty before me,
A spirit arises and breathes
A spell of sweet ecstasy o'er me.

In fancy I dwell in a land
As bright as a lover's fond vision,
And fully, awhile, I command
The joys of accomplished ambition.

On the summit of honour divine
I smile on the world from above,
Wealth, power and fame—they are mine,
And the measureless riches of love.

But stay! in my zeal I forget
To unravel the threads of my theme.
I have not exhausted, as yet,
The joys of this holiday dream.

Forgive me, fair Muse of Romance,
If I slighted thy gifts so divine.
In lowly remorse I advance
And bend at the foot of thy shrine.

Thy home is a place of delights,
Where my spirit in fantasy dwells,
'Mid a pageant of wildering sights,
And music that fitfully swells.

I vow that thy gardens are pleasant,
And cherished by me is thine Art,
I dote upon *Dickens* and *Besant*,
And gratefully worship *Bret Harte*.

I have sorrowed, again and again,
With thy victims of tyrannous might,
I have laughed with the humourous *Twain*,
With *Ivanhoe* fought for the right.

When the wiles of the villain prevail,
My soul is depressed unto zero,
With rapturous triumph I hail
The march of the conquering *Hero*.

* * * *

Thus, then, shall my holiday speed
Its moment of freedom and pleasure,
Till, with sad resignation indeed,
I compass the end of my leisure.

And then, with a spirit imbued
With peace,—to itself and its neighbours,
I'll hie me, with courage renewed,
Once more to the scene of my labours.

Guy's Hospital Gazette,

SEPTEMBER 3, 1887.

The establishment of a new official post in connection with the GUY'S MUSEUM — that, namely, of sub-curator—which, as our readers are aware, has been recently effected, suggests a few remarks with reference to the excellence of the institution in question, both absolute, and as compared with those connected with the other teaching hospitals of Great Britain. And these remarks will, perhaps, not be considered the less appropriate for coming at a time when we are drawing to the close of our academical year, and many of our junior readers must, in the ordinary course of things, be passing on to a new and untried phase of development, leaving behind them the dissecting room and its lessons of patience and discipline, and entering upon the more attractive and humanly-interesting field of pathology and clinical research.

To these especially it may be useful to point out that, in the GUY'S MUSEUM, they are the lucky possessors of a mine of potential knowledge, and a store of accumulated labour, of which it would be impossible to speak too highly. This MUSEUM of ours is without doubt to be favourably compared with that of any other hospital in the British Isles, possibly even in the whole world. In London, the MUSEUM of the COLLEGE OF SURGEONS is the only collection of pathological specimens which can vie with it in richness of illustration of the myriad types of disease, and of the methods adopted by Nature and Art towards its repair.

It is to be feared that we do not on the whole appreciate the privileges which we of GUY'S possess in this, as well as in some other particulars.

It is true, we are told, that more men use the MUSEUM habitually, and take advantage systematically of its vast resources, for purposes of study than was the case some years ago. But there are, it is feared, many of us to whom this does not apply; who are careless of the chances which lie open to us, and letting slip the golden hour of opportunity, prefer to trust ourselves to the shorter and more perilous route to registration, represented by text-book study, rather than the sure and beaten track that leads to sound experience and independent judgment. This is, assuredly, much to be regretted, and no slight cause of surprise to those who are not aware of the rule, which states that opportunity and progress are by no means synonymous terms.

To those whose enthusiasm for genuine knowledge, as distinguished from the spurious substitute born of mere "*cram*," is not a sufficient motive, we would point out that a working knowledge of pathology can never fail to be serviceable, even in an examination, to its possessor.

Then, again, there is the fact that in our index we possess a valuable hand-book of no small literary and scientific value, which will well repay careful study and mental assimilation.

We should like much to see this index published in a cheap and portable form, and feel sure that such a step would be popular, and tend greatly to the encouragement of an honest and hearty interest among GUY'S men, in the work which has been so well done for them by their predecessors and teachers, in building up this grand monmument to testify for ever, to the medical world, to the energy and enthusiasm of our GUY'S pathologists.

What we have said above about the excellence of the Museum refers, more especially, to its value as a collection of pathological specimens, but a word must be added in appreciation of those extraordinary specimens of the modeller's skill which are the wonder and admiration of the whole medical world.

JOSEPH TOWNE was, without exception, the greatest realistic artist who has ever lived, we had almost written, or who ever will live, and the expression would probably not have been too strong. His anatomical and other models are at any rate unsurpassable, they are the perpetuation of the visible attributes of the subjects which they represent. His surprising industry is almost equally remarkable, and when one thinks that, even here, we have not the whole of his life's work before us, we cannot help feeling the force and eloquence of his noble example of unselfish labour and untiring zeal.

One word more as to the accommodation provided for students who wish to work in the MUSEUM, and we have finished this rather lengthy discourse.

We cannot help thinking that things might somehow be made more comfortable than they are, and it must be confessed that to a lukewarm enquirer after wisdom, the buildings present a somewhat cheerless and uninviting aspect. However this is only a suggestion, and we cannot undertake to submit plans of improvement to those who are doubtless better able to judge of its necessity than ourselves.

Hospital News.

THE STUDENTS' CLUB.

We are happy to be able to say that the Guy's Hospital Students' Club will be opened before the end of the present month. A set of Laws and Bye-Laws (which await ratification by the members) have been drawn up. The Annual Subscription has been fixed at twelve and sixpence.

A Student may become a life member on the payment of five years subscription, or of a composition fee of £2 10s.; and senior men, who are leaving or have left the Hospital, may become life members on the payment of one guinea.

The Provisional Committee have decided to suggest that a sliding scale should be adopted for Members of the Reading Room, so that a life member of the Reading Room would become a life member of the Students' Club, on payment of a member of the Reading Room who had paid three subscriptions, the difference between the amount of his payments to the Reading Room, and that required by the Club for life membership, and so on.

This scheme has been drawn up, and only awaits the ratification by the members of the Reading Room, which, of course, cannot take place until the beginning of next Session, when they will hold a meeting.

By the end of the week the necessary alterations will, most probably, have been completed, and then furnishing will be commenced, so that the Club will, most probably, be opened about the fourth week in September.

The catering has been entrusted to Mr. Millson; it is obviously superfluous to say that it will be thoroughly well done.

For the convenience of members who may wish a mid-day meal on Sunday, Mr. Millson will provide a dinner at the "Ship and Shovel," at the Club tariff.

HOW EXAMINATIONS ARE CONDUCTED.

(From the *Lancet*, *&c.*)

SIR,—At the last examination of the Royal College of Physicians, I presented myself and was alloted a certain day for the *viva voce* in medicine, but two or three days later I received another card altering the date to one four days earlier. The examination being over, I am kept waiting till the very last, and then told "that the clerk had forgotten to acquaint the examiners with the fact that the date of my *viva voce* had been changed; but that they will write to me as soon as the examiners bring my medicine papers and report on them." I go away to the country the next day, and wait a week without hearing anything. I then telegraph to the Examination Hall, then a reply is sent me, saying "that I have 'passed,' but that if I wish to receive my diploma this time, I must come up to London at once and sign the book." This, of course, I refuse to do, and then an affidavit form is sent me, which I fill up and get the diploma.

But on returning to London I am met with condolence from my friends, both professional and non-professional, as my name has not appeared in the lists of passed candidates in the medical journals.

I think it is most disgraceful that such laxity should exist and appear to be common, for a similar occurrence happened to me at the B.S. examination at Durham, when my name was crossed off as having failed, when I had passed.

Hoping that the insertion of this letter will aid in preventing such occurrences.—I am, Sir, faithfully yours,

F. W. EDRIDGE-GREEN, M.B.

London, August 22nd, 1887.

NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

III. TUBERCLE (*continued*).

Pneumokoniosis. (*Syn.*) Anthracosis or Miners' Phthisis, Mill Grinders' Phthisis, Steel Grinders' Phthisis (grinders of pens or pointed instruments).

A name given to chronic disease of the lung due to inhalation of various forms of dust.

The pathology of this affection is probably dual.

1. There is a form which gives rise to bronchitis, and following upon this, a dilatation of the walls of the bronchial tubes, then thickening and finally overgrowth of the connective tissue of the lung; in other words, a *chronic interstitial pneumonia.*

2. But there is no doubt but that there is a second class of cases in which the phthisis is truly tubercular. In these cases—

a. The disease attacks one lung before the other.

b. It commences at the apex and breaks down into cavities.

c. It is accompanied by tubercle, either in the lungs or elsewhere.

Miners' Phthisis may be of either form, and is due to the irritation caused by minute fragments of coal dust. The lungs become intensely black, and the seat of the pigment is the inter-alveolar connective tissue, the peribronchial and inter-lobular connective tissues, and, finally, the bronchial glands.

Tubercle as affecting Organs other than the Lungs.

Intestine.—About half the cases of *phthisis pulmonum* are affected by tubercle of the intestines.

It affects both large and small intestine, one or both, most commonly the caecum.

Note.—Typhoid affects usually small intestine.
Dysentery ,, large ,,

It commences as a deposit of grey tubercle in the solitary glands and Peyer's patches; sometimes, however, it starts in the submucous tissue independently. The grey tubercle speedily becomes yellow and caseous; the mucous membrane covering the tubercle sloughs off, and a little shallow ulcer results: then these ulcers run together and form sinuous ulcers; subsequently, by the continued formation of tubercle and its caseation, large tracts of ulceration are produced.

The typical tubercular ulcer of the intestines is generally:—

a. Irregular, circular, and running round the transverse axis of the bowel;

b. The edges are thickened and nodular, and not undermined;

c. In the base of the ulcer, on the peritoneal surface, small miliary tubercles may be seen.

These ulcers rarely perforate, and do not often bleed.

The ulceration leads to inflammation of the peritoneal coat; and, further than that, more or less extensive deposits of tubercle, which rapidly become yellow and caseous, take place in the peritoneum, omentum, and mesentery; further, the mediastinal glands become yellow and caseous. The result of this is:—

a. The coils become adherent to one another;

b. The mesentery thickened and shortened, binds them down to the vertebral column;

c. The omentum becomes puckered up into a hard transverse mass, usually about the umbilicus.

d. Ulceration extends between adjacent adherent coils, so that the original lumen is lost.

e. Lastly, there is very little or no ascitic fluid.

(This disease is one form of *tubercular peritonitis* (tabes mesenterica). In adults it is secondary to Phthisis or some other Tubercular disease; in children it may be primary.)

Serous Membrane Tubercle affects peritoneum pleura and pericardium (not Pia Mater or arachnoid). It may be limited to the abdomen, and then gives rise to a second form of Tubercular Peritonitis. The tubercle is of the miliary variety. The serous membranes are found studded with more or less numerous grey tubercles, which, however, also become yellow and caseous.

Of course, miliary tuberculosis of serous membranes are frequently found as a complication of other tubercular diseases such as Phthisis, or as part of a general eruption of tubercle (acute tuberculosis); but there is a form which only affects these serous membranes, which is primary, and which is curable.

This form of tuberculosis is accompanied by much fluid effusion, so that serous cavities become distended with clear yellow serum often with flakes of lymph floating in it.

Tubercular Laryngitis and Tracheitis.—After the intestine, the larynx is, probably, most often affected. It is very rarely primary, generally occurring at the end of a case of pulmonary phthisis.

There are two forms:—

a. Miliary Tuberculosis, in which there is a deposit of grey granulations in the mucous membrane of the larynx, and possibly the other air passages, with much swelling and injection of the air passages.

N.B.—The epiglottis being often affected, there is much distress and dysphagia.

b. In the second form an ulcer starts at the back of the arytaenoid cartilage, and may spread laterally and in depth, and lead to necrosis of the cartilages and their expectoration.

Genito-urinary Tubercle.—Tubercle may affect the kidney in two ways:—

(i.) As part of a general tuberculosis.

(ii.) As a primary disease.

As part of a general tuberculosis it has no special importance; it is only a part of a grave and fatal disease; but as a primary disease it is of the utmost importance.

Besides the kidney the whole of the genital and urinary tracts may be involved:—ureters, bladder, urethra, vas deferens, testis, fallopian tubes, uterus. This form of tuberculosis does not of necessity start in the kidneys. It may commence in the testis or the kidney, or both kidney and testis may be affected simultaneously.

The disease commences generally at the apices of the Malpighian Pyramids, or at their bases between the Pyramids and Cortex. There is no doubt that, at first, there is a deposit of grey miliary tubercle; this, however, is rarely seen, for tubercle of the kidney very rapidly caseates.

What is generally seen in an early stage is a deposit of round caseous nodules, of variable size, in the position named; these nodules, of various sizes, by aggregation increase in bulk, soften in the centre, and form vomicæ. But coincidently with this, the pelvis of the kidney undergoes tuberculosis; the tubercles become deposited in the mucous membrane, and frequently, perhaps generally, the tubercular disease leads to obliteration of the lumen of the ureters, and, following upon this, we get dilatation of the pelvis and calices, and flattening out of the Malpighian Pyramids; and the final result is that we get a large, often very large, organ with dilated pelvis and calices, and riddled in all directions by cavities containing caseous débris.

It is of special importance to note that tuberculosis of the kidney may be a primary disease.

Spirit specimens of renal tuberculosis cannot be distinguished by the naked eye from growths in the kidney—*e.g.*, sarcoma.

Tubercle of Spleen is, probably, never primary. It is part of a general tuberculosis.

The spleen is studded with round, yellow nodules about the size of a millet or hemp seed, and said to be washed away by a stream of water, whereas Malpighian granules are not (Dr. Carrington says it is doubtful if this is true.)

Tubercle of Liver.—Here, again, we have to deal with a secondary disease.

Note.—In children with jaundice and fever there is, probably, tuberculosis of liver, which may be associated with general tuberculosis. As part of a general acute tuberculosis, the liver may be studded with numberless, grey granulations; in a later stage yellow tubercles are met with, the nodules varying in size from a hemp seed to a hazel nut, or larger.

The tubercles seem to be deposited in the course of the bile-duct; they are always bile-stained, and there is generally a central cavity. It used to be said that the cavity represented the lumen of a bile-duct; this, however, appears not to be the case. The cavity results from the softening of the tubercle—at all events, continuity with a bile-duct cannot be established.

Tuberculosis of Brain and Spinal Cord.—As a primary disease is limited to *young children* (under ten; probably under five years of age), but may occur in adults, as a secondary effect of phthisis, or some other form of tuberculosis.

The most common seat is the *cerebellum*, after this the *pons*, medulla, crura cerebri, optic thalamus, corpus striatum, and, besides this, the central hemispheres, and the cord.

The growth is very often *solitary*, but there may be several. It varies greatly in size from the smallest possible to the size of a billiard ball, or larger. It presents itself as a more or less rounded mass of firm consistency and yellow and caseous throughout; generally firm throughout; *very rarely* softening in the centre.

At the periphery will be seen a greyish translucent border. This is the growing edge, for when examined by the microscope it will be found to present the typical tubercular structure.

Addison's Disease—This is said by many to be a tubercular disease of the supra-renal capsules.

Tubercle of the supra-renal capsule may be a part of a general tuberculosis, but this can scarcely be called Addison's disease, for the pigmentation and other symptoms may be entirely absent. Whether Addison's disease is entirely tubercular is open to question.

The earliest appearance is of a greyish deposit in the medulla of the supra-renal capsule. Then the deposit invades the cortex, and the organ becomes enlarged to two or three times its bulk, or even more. Then this deposit undergoes fatty degeneration and caseation. At first, yellow caseous nodules of the size of a pea are seen, but ultimately the capsule is converted into a yellow caseous mass.

Upon this a stage of atrophy supervenes, and the capsule becomes small and contracted, and even converted into a little fibrous body without any trace of the original structure.

One capsule may probably be affected before the other; but *post mortem*, in true cases of Addison's disease, both capsules are affected, although the disease in one may be in advance of the other.

Microscopically, the new growth is found to consist, in the first place, of numerous leucocytes and an indistinct fibrillated stroma; further, the leucocytes undergo fatty degeneration, and break down into a granular débris.

Many reliable observers have found the bacillus tuberculosis in the supra-renals in cases of Addison's disease.

This affection of the capsule is frequently associated with caries of the spine, generally the lower dorsal and upper lumbar vertebræ.

Relation of Addison's Disease to Tuberculosis.—Dr. Moxon investigated those cases of Addison's disease in the Museum of Guy's Hospital, in which the lungs had been preserved, and he almost invariably found tubercle at the apices of the lungs.

Dr. Wilks believes that the disease is a special one, and only the affection above described will

give rise to the prevalent symptoms of the disease—viz.:

Pigmentation
Asthenia
Feeble Circulation
Vomiting
Little or no emaciation.

But of late, other cases have been recorded in which all the symptoms have been present during life, and in which, after death, the capsules have been found diminished to thin-walled cysts, or just a relic of supra-renal tissue.

The question must, to some extent, be regarded as undecided.

No doubt the vast majority of cases are accompanied by caseous disease, and often by tubercular disease. Whether Addison's disease may be due to a simple atrophy, or whether atrophy, such that the capsule may be reduced to a mere cyst, is a later result, is undetermined.

Such cases of atrophy have been described by Wickham Legg (Bartholomew's Hospital Reports), Dr. Barlow (Pathological Transactions), and Dr. Coupland (Pathological Transactions).

(To be continued.)

Pathology of Hay Fever.—Dr. John Roe, in a paper communicated to the American Laryngological Association, advocates some new views of the nature of Hay Fever. He is of opinion, that in all such cases there is, at the initiative lesion, a diseased condition of the nasal forsæ, and that by this means an abnormal activity is induced in the ganglionic centres connected with the disease tissues, which is reflected to other organs. The disease in the nose may produce disease in other parts of the respiratory tract, which may become independent centres of irritation. The affection known as Hay Fever is due to local irritants (? *pollen*), brought into contact with the sensitive areas in the nose. The affection is not *per se* neurotic, but the neurotic condition may be due to the local irritation. By careful and thorough treatment of the disease of the nasal tissue, combined with that of secondary sources of irritation lower down in the respiratory tract, we need not fail to cure hay fever.—*Boston Med. and Surg. Journ., June 9.*

Passim.

The new session will open on the 3rd of October, on which occasion Mr. Beddard has kindly accepted the invitation of the Physical Society to read a paper on some scientific subject. As Mr. Beddard holds the post of pro-sector to the Zoological Society, he has exceptional opportunities of accumulating biological knowledge. It may therefore be confidently anticipated that a most interesting paper will be read on this occasion.

Old Guy's men are cordially invited to attend, and it is hoped that our friends will turn up in large numbers and make the meeting a successful and representative one. No cards of invitation are necessary for admission, indeed we believe that none are to be issued, but it is to be understood that all Guy's men, past and present, will be welcome. Tea and coffee will be served at half-past seven, and at eight o'clock Dr. Wilks will take the chair.

The new club is progressing favourably, and, if all goes well, will open with the new session.

It is to be hoped that it will be as successful as the enterprise and energy of its promoters deserve. If so, its life will be a long and a prosperous one. We have been asked to state that the committee are now in a position to accept subscriptions from future members for the ensuing year. The yearly subscription is to be twelve and sixpence; five yearly payments to constitute a life member.

We are also able to announce that special terms will be granted towards life membership to those who have already subscribed to the late reading-room. This is as it should be, of course, for the reading-room club has forfeited all its recognized privileges by the creation of this new and larger enterprise, and its members deserve some recompense for what they have

lost. There can be no reasonable doubt, however, that the exchange they will make will be to their own advantage, as well as to that of their fellow students.

Subscriptions may be paid to Mr. Wells, at the Medical School Office.

On behalf of the Presidents of the Physical Society, we wish to invite all Guyite artists and photographers to send in specimens of their skill for exhibition at the opening meeting of the Society, to be held on October 3rd. There are many Guy's men who take a great interest in the art of photography, and a few who are skilled draughtsman, and painters of pathological and other subjects.

It was thought that on this occasion an exhibition of such productions of native art would add greatly to the interest of the proceedings. Of course, there will be the usual exhibition of microscopic specimens and instruments.

Exhibitors are not restricted from showing photographs and drawings of general, as well as medical interest. All good work will be gladly received, though, of course, pathological and medical subjects should be selected wherever they are available.

Any of our artists who care to respond to this invitation will oblige by communicating their intention, and any particulars that may occur to them, to the Editor, in order that their proposals may be considered and acknowledged. We may point out now the desirability of appending to pictures and photographs a few explanatory remarks, on the margin or elsewhere.

A Guy's man, whose name we need not mention, but who is well known to most of our senior students, has lately undergone a rather novel treatment, for what there is every reason to believe would have turned out to be a severe attack of diphtheria.

He is at present resident at the Throat Hospital in Golden Square, and had, the day before his illness began, taken in an exceptionally bad case of diphtheria. The next day his left tonsil was enlarged, and covered with a greyish patch of membrane, with a black, central slough. He consulted his friend, Dr. Carpenter, at the Evelina Hospital, and they agreed to try the effect of galvanic cauterism. This apparently severe treatment was carried out; the membrane was thoroughly destroyed, and, we are glad to state, has not since re-appeared. Of course, the patient's throat remained very sore for some time; but he lost the feeling of general illness and malaise almost at once. The suggestion may be of value to those of our readers who are interested in the treatment of this disease.

RASAE ASPERGILLI.

Being Shavings from the Log of Mr. L. Epispasticus, late Surgeon to the s.s. "Aspergillus."

(Continued).

Gee up!

Gee up! is all very well to say to a horse that knows what it means, and when he can do it. But my Pegasus has got the staggers. That is to say he is suffering from temporary inco-ordination owing to a large part of his cerebrum being occupied by obnoxious tænia-cysts "in the place where the white matter ought to be." In other words, a large number of perplexities assail me at the very beginning of this narrative. If Horace had written an Ars Narrandi instead of the Ars Pœtica, it would have appealed to a much larger public, run through many more editions, and have been of infinite utility to young aspiring writers. For whereas your poet is like a balloon of gas that floats up to heaven, dragging the easy car through a dizzy heaven without apparent effort, the humble narrator built of solid fact, has to be tied on to some such elevating vapour-bag before he can budge. What I want is evidently gas. The origin of the art of writing is buried in such obscurity that spectacles are entirely useless. The simplest form of literary effort requires a very complicated attitude of mind. He who strives for such effect, having to represent his facts and characters to the reader, in such a way that they may appear to him such, as he by imagining them to be such as they appear to others than himself, represents them

to himself to be, in pourtraying them as they seem to himself to his reader. Simpler minds, however, have to adopt more complicated terms of expression. The consequence of which is that the facts and figures they endeavour to pourtray are presented to the readers such as they appear to be to them. And as every one knows no single object appears to two minds alike, the characters, as perceived by the readers, bear no resemblance whatever to those the writer intended to be describing. The gist of which is one of the Echinococcus cysts producing staggers. Am I to write what I think I thought, or am I merely to jot down what (I think) others think I must have been thinking. If they thought as I think? The former is tedious; but the latter untruthful. And there are eleven thousand miles to be got over, as be got over best can.

On February the eighteenth I was ordered to be on board.

On going down to the Docks, the first important question that will agitate the mind of the new comer, is whether to appear in nautical costume or in civil array? My own deliberations on this subject were very prolonged, and fell under the following chief heads:—

1. A top hat is dignified and professional on land; but might it not be out of place, and even become an object of derision, at the Docks or on board?

2. My nautical garb (quâ purely nautical), consisting only of a cap, was very comely; but, if early adopted, perhaps open to misconstruction. It might be urged as

(*a.*) In Liverpool—common place—not dignifying.

(*b.*) Shoppy—forefend!

3. An undue haste to assume the insignia of rank might be construed by the men on board as an arrogant assumption of unearned feathers—spurs unwon, so to speak; a very undesirable impression at starting.

Finally, I decided to go on board in my top hat, as signifying, that though temporarily adopting the cradle of the deep, this was merely a passing phrase of amphibiousness. My true development and dignity lay on land.

On arriving at the Prince's Landing-stage, my luggage was seized by a number of porters, eager to carry it to different ferries. A mental comparison of these harpies to Phagocytes was interrupted by the necessity of keeping the banditti within a half-mile of my proper ferry. Their alacrity was remarkable, but their services expensive. At last these were deposited on the little paddle-boat, about the shape of the Epididymis, and we left Liverpool for Birkenhead. On the way across, with a sea-odoured breeze ruffling the water, one cannot help admiring the prospect. Right and left, on the undulating liquid that seems swelling with power, and wealth, and commerce, are craft of all sizes. Big ships, little ships, boats of every magnitude. Five mast-ers, three mast-ers, schooners, ironclads, lighters, yachts, steamers, wherries. Right and left they stretch away in crowds into the distance; far away pyramids of smoke mark the entry and exit of more of those busy traffickers of the great ocean highway. In front and behind, thousands of houses, ware-houses, factories, smithies, docks, forts, engine yards, and chimneys. Fore and aft the ceaseless hum and clang of machinery and voices, carriages and hammers, whistles, bells, gongs, bellows, blasts of steam, churning paddles, splashing oars, rattling chains and anchors, creaking ropes and stages, and plashing waters; Babylon, Tyre and Sidon, and Pandemonium rolled together!

I love to look out towards the sea-horizon at Liverpool; there is such a magnitude and oppressiveness of wealth about those journeying passengers and argosies. Only, owing to the sharp bend of the river, which makes Birkenhead on the south bank lie nearly due west of Liverpool, which is on the north, I generally spend the first half-hour looking in the wrong direction.

At Woodside Ferry my luggage was again seized by Phagocytes, and carried along the wharf to the Aspergillus, then in dock, and just preparing to move out. I hurried on board and was saluted by—the Dispenser!

CARCINOMA OF VERTEBRÆ, RIBS, BONES OF PELVIS, &c., &c.

Andrew E, æt. 63, was admitted into Philip, under Dr. Moxon, on March 4th, 1885, complaining of pain in both shoulders and down his spine. His grandfather suffered from rheumatism. His mother died of cancer of the womb. Patient had an attack of brain fever when he was 30, and enteric fever when he was 48 years of age. Has had gonorrhœa, but is positive he never had syphilis. He is a wine merchant, and has lived freely. Present illness commenced four months ago with pain in left knee and groin, then in both shoulders and down his back; these were thought to be the result of a chill. These pains have never left him, and he has been getting weaker, more especially in his left leg. He has been attending as an out-patient, under Dr. Goodhart, for the last month.

On admission the following condition was found:—Stout, rather florid appearance; some slight grating can be felt in the left shoulder, elbow and wrist; knees are rather swollen, crackling felt in left one; the other joints appear to be healthy, although he complains of pain in his left hip. Fixed internal strabismus of left eye, with slight ptosis, which have come on during last three months. There is an oval swelling on the inner third of his left clavicle, measuring 2 by 1½ inches; it is limited, moveable over clavicle, feels tough and hard, does not fluctuate; he has only noticed this three weeks. On the upper half of the sternum is a depressed irregular cicatrix, measuring 7 by 5 inches in its longest diameters, adherent to the bone in the centre. He says this is the result of an abscess which formed and broke after a kick from a horse.

Cardiac dulness not increased; heart sounds normal; pulse 88; temp. 98·4°.

Chest resonant rhonchi all over in front and behind; frequent cough, with expectoration of a bronchitic nature.

Liver dulness from 5th rib to margin in the mammary line.

Splenic dulness over 7th, 8th and 9th ribs; spleen cannot be felt.

Urine normal, faintly acid, sp. gr. 1020; no albumen or sugar.

Ordered:—Middle diet; to be kept in bed; Mist. Ammoniæ, ℥ i. t. d. s.

March 8th. Patient seen by Dr. Goodhart; he did not consider the grating and crackling mentioned above sufficient to mean any arthritic change; he thought the tumour on the clavicle was either syphilitic or carcinomatous, probably connected with some carcinoma of the spine. Patient's condition is much the same as on admission.

℞ Pot. Iodid gr. v.
Mist. Pot. Iodid ℥ i. t. d. s.

March 11th. Impaired resonance at the inferior angle of each scapula; metallic râles are heard in these positions in addition to the general rhonchi. Bowels confined. Pil. Col. et Hyos. gr. x. h. n. s.

March 12th. Complained of diarrhœa. Temp. 98.4°

March 16th. Says he feels much weaker, especially his left leg. Diarrhœa still very troublesome; he passes his motions under him; motions are perfectly fluid; there is no blood in them. There is no difference in the length of the legs. The Plantar reflexes are only slightly marked more on the right than the left side. No ankle clonus. No abdominal reflexes. Sensation of left leg impaired. No alteration in the tumour on left clavicle so the Iodide is to be omitted. ℞. Mist. Hœmatoxyli ℥i. t. d. s. A water bed.

March 18th Diarrhœa still continues; the rectum was examined, but nothing like any malignant growth could be felt. Patient is much weaker and moves in bed with difficulty. Brandy ℥iij.

March 23rd. Diarrhœa has stopped. Complains of good deal of pain at night and is unable to sleep.

℞ Pot. Bromid gr. xx.
Syr. Chlor. Hyd. ℥ij.
Aq. ad. ℥i. ft. haustus, nocte sumend.

March 26th. Very weak, appears to have no power over lower limbs or sphincters. Liver can be felt to be between two and three inches below the level of the ribs; it is deep black with intestines in front of it, but when latter are displaced by manipulation the hepatic surface is felt to be hard and irregular. The veins on the surface of the sternal scar are congested which was not the case on admission. Cough very frequent with much expectoration.

℞ Ammon. Carb. gr. x.
Tinct. Senegæ. xxx.
Aq. ad ℥i. 4^{tis} horis.

April 2nd. Sensation is certainly blunted all over, but no definite line of cessation can be

made out. According to patient's statements he can feel nothing on his legs; about the level of his nipples he becomes more decided in his answers as to the prick of a needle. Plantar reflex very slight on left side, hardly any on right; patellar reflex more marked on the left side. No superficial abdominal reflexes.

April 4th. Patient weaker. Urine strongly ammoniacal loaded with phosphates.

April 6th. Cannot move his lips; loss of power in right arm. Lips and thighs are breaking out in sores, which commence as blebs, which burst and leave patches of superficial ulceration; these do not correspond to points of pressure. Temp. 102·6°

Brandy ʒvi.

April 7th. Patient died at 8·30, having gradually become weaker. His temperature at 6 p.m. was 97·6°, and 102·2° half an hour after death.

Post Mortem. The last two cervical and upper dorsal vertebræ were softened by infiltration of a new growth, it extended into the spinal canal, but not far enough to press upon the cord; it was thought that the nerve roots might have been pressed upon. The lower dorsal and the lumbar vertebræ were similarly infiltrated and in addition there were four or five rounded tumours about the size of pigeons' eggs occupying anterior surfaces of the bodies; the growths were all soft and of a brownish yellow colour on section. Spinal cord normal.

There were similar growths from the 5th and 6th ribs on left side, from the 6th rib on the right side; the left clavicle and left pubis.

The liver weighed 60 ozs., and was full of growth. The lungs, prostate, and pancreas were also full of growth. Intestines and other viscera healthy. Brain not examined. Microscopically the appearances were those of carcinoma, viz.: under the high power, delicate bands of fibrous tissue with oval nuclei enclosing spaces in which were cells of different shapes having large round nuclei; there was a far greater preponderance of cells than fibrous tissue, and many large blood vessels were seen in transverse section.

The main interest in these cases is their diagnosis, which is often extremely difficult, not so much on account of the good we may do to the patient, as on account of the prognosis we may give. Out of fifteen cases I collected from the Clinical and Pathological reports of this Hospital, only three were diagnosed before death. This patient, when first admitted, was thought to have chronic rheumatism, and to exaggerate his symptoms. In a case under Dr. Moxon, in November, 1875, the report says:—"Patient says the pain in the side is very bad; it does not seem real." That was all he complained of when admitted, and there was nothing much to account for it, but he died within five months. Out of the fifteen cases, six terminated in three months from first feeling anything wrong, the longest time being fifteen months from first complaint. In another case, under Dr. Pavy, in November, 1873, on admission, the report says —"Patient is very well nourished; seems to exaggerate her symptoms." She died in less than two months after admission, with extensive malignant disease of spine, calvarium and viscera. Fortunately it is not a very frequent disease, but that is no reason why we should not look out for it, as I am sure no one would like to send a patient away for change of air, or for mineral waters and baths, and tell him he would soon shake it off, and then receive a communication to say the patient had succumbed to his "chronic rheumatism." The chief points to guide one seem to be persistent pain, with loss of flesh, loss of power and sensation, with evidences of visceral disease, and in some cases tumours about the bones.

R. CAPES, L.R.C.P., Lond.

PHILOSOPHIA MEDICI.

REFLECTIONS AND NOTES

By Walter Moxon.

1857 to 1869.

III.

Remorselessly, Time, as she courses on, brings effects according to the causes you have been identified with, and on your head will those things fall, so long as your identity is still united with those causes. But when the current of Time has streamed by your act, that act becomes eternal—it stands moulded out of the formless future into the immutable past, and there it stands in unchangeable relation with the other things that were near it in place, until time, passing over, fixed them for ever. And your identity, which includes your responsibility, sweeps on in the nature to which it belongs—on, on, in even course, until it ceases, like all the forms that ever-changing Nature for a moment wears. And then you are alone with the Eternal and changeless, and all you did and felt—every word and thought and glance remain, and forget that things in Nature are still changing, and that they themselves are all forgotten in her changes; and, remaining ever there at rest, they care not that they are unremembered. Are they not with God? What have they lost?—only the troublesome identity that was required, alas! for their completion, but ceased when its work was done, and was fulfilled into the more just and perfect unity that makes the past a region of quiet, where motives cease to strive and regrets to languish. Sweet, completed unity, which Nature labours that she may leave behind her, and leaves ever behind her.

Be contented, not satisfied. Progress should suffice you, never the present state.

I shall prescribe you an impossibility to do, because the impossibilities of to-day are the easy possibilities of to-morrow.

When we are reading on a railway journey, and chance to pass from the open air into a tunnel for a while, we lose sight of the type on the page, and no effort can bring it to view for a few moments. Then it slowly re-appears in the dimmer light of the carriage lamp, and we read again as we were reading in the open air above ground. What an exact image is that of what occurs when a great grief comes down upon us. At first, we struggle in vain to see clearly our course on as we saw it before, and that although the light that is left to guide us is burning above, but presently our minds get accustomed to the new position, and we can see our way again.

Don't tell me of ends; I have seen enough of them. Show me a course where the effort will be fruitful on the way.

If a man has no surprises he has no beliefs. Belief comes of wonder. We are, nowadays, too proud to wonder. Beliefs familiarize the unknown; he who has no belief is strange to half the Universe, and in physic to more than half his calling.

Nature goes in curves and our logic in straight lines, and our straight line reason will not follow Nature's curves. We have to find a kind of differential calculus to adapt it.

The proper field for doctors is metaphysics; we combat metaphysical entities. Our fight with the physics is like swimming out to fight what is in an element we cannot breathe.

Every animal looks "*you're another*" at you.

Works without faith are dead. Faith without works is a ghost.

How inappreciably short is this present moment, which is all that separates the formless from the immutable. As you read this, you have become, from what you were not, what you never can cease to be.

And if a blind nature has budded out this eye and soul of mine, surely I can cast with it a kindly, loving glance on her, and wish that in her similar efforts, yet to come, more of her strength and of her harmony may come to the light of self-knowledge. Yes; even I, may in spirit, at least, go with her, forward and help her efforts.

Names guide, if they don't illuminate.

In some people the same kind of pleasure attends all their pleasurable acts. This should not be. There is, or should be, a scale of pleasures, from the lowest and least worthy to the highest and noblest, and the soul should have, proportionately, intense delight according to this scale.

HÆMATOMA OF THE SCALP

SUCCESSFULLY TREATED BY TAPPING WITH AN ASPIRATOR.

On October 30th, 1881, I attended in her fifth confinement, Mrs. M., a tall, slender, delicate woman, wife of an eminent engineer, in her 35th year. I was called to the case about 6 p.m. On arriving at the house I was conducted into the drawing room, where my patient was seated with her husband, with whom, on seeing my instrument case, she desired me to remain, pointing to them and remarking, as she proceeded upstairs with her nurse, that "she did not want them," meaning the instruments, and that "when she needed me she would send for me." Accordingly, after waiting about an hour, the patient sent for me, when I found her in bed in strong pain with the child's head protruding through the vulva. The birth was quickly accomplished and the expulsion of the placenta soon succeeded, followed by a profuse post-partum hæmorrhage accompanied with profound syncope. After attending to and securing the safety of the mother, I next directed my attention to the infant—the largest that I remember ever to have seen at birth. On examining him I found over the right parietal bone a large oval swelling, the base of which rested upon a firm osseous floor, and having no traceable communication with the interior of the cranium. The tumour, instead of gradually subsiding in a few days in conformity with my experience of such cases, steadily increased till it attained the size of a small fist, being red and tense, though admitting of fluctuation, and painful, occasioning restlessness and crying. In this state of things I first proposed to the parents—both of whom were racked with anxiety about the child—the necessity for evacuating with a lancet the fluid contents of what then appeared to me to have suppurated and become an abscess; but, on fuller consideration of the circumstances of the case, deemed it better to draw out the pus with an aspirator, which I procured for the purpose from Messrs. Arnold and Son, Surgical Instrument Makers, West Smithfield, London. The infant's father was desirous that I should have the assistance of Dr. Mackenzie, of Rugby, at the operation. To this I assented, and on the day fixed for the operation met at the patient's home Dr. Mackenzie, who informed me that he had brought with him a hypodermic syringe with which to operate, but, on my remarking that I had with me an aspirator, gave the preference to the latter instrument. On examination of the tumour, Dr. Mackenzie diagnosed it to be "a hernia cerebri" and said that it would be unadvisable to interfere with it, but the father expressed his urgent desire for curative measures. We, therefore, prepared to operate—Dr. Mackenzie giving me the option of operating, which I accepted. On making the upward movement of the piston of the aspirator, I was not a little surprised on seeing the barrel of the instrument filled with blood instead of pus as I had expected, and was in the act of withdrawing the aspirator, considering that we had both grossly erred in our diagnoses, and that the case must be neither abscess nor hernia cerebri but a nævus; however, my colleague urged me to persist, which I did till I had exhausted the sac or cyst, drawing off about six ounces of fluid blood of a bright red colour, afterwards applying lint, compress and roller. We quite expected that there would ere long be a necessity for repetition of the operation, which, however, did not arise; one operation sufficing to effect a cure, the puncture healing and the tumour disappearing without suppuration or any ill consequence, leaving no trace of its existence in three weeks. This tumour appears to me to have been caused by the laceration of the coats of a bloodvessel—probably a small ramification of the temporal artery — by the overlapping edge of the parietal bone firmly compressing the vessel against the maternal pelvic bones in the transit of the fœtal head.

Guy's Hospital Gazette,
OCTOBER 1, 1887.

A CASE OF ABSCESS OF THE LIVER.

Wm. Crawford, æt 30, a rag-sorter, a dark, fairly-nourished man, in very poor circumstances, came under my notice on August 10th. He complained chiefly of his throat, which, on examination, was of a deep red hue, the redness extending all over the soft palate, pillars of the fauces, and back of pharynx.

He said he had vomited several times. Temperature, 99°, and he seemed ill. I treated him for his sore throat.

August 11th. Seemed rather better.

August 12th. Worse: kept his bed. Complained of pain in right side, and was breathing more quickly.

There was dulness over right base, behind, from eighth rib downwards, with absence of respiratory murmur and of vocal fremitus and resonance over dull area. Some harsh rhonchi audible.

August 30th. About the same. Physical signs unchanged. Sent into Union Infirmary. Towards evening became worse.

T., 98°; P., 102; R., 38.

August 14th. In great distress. Breathing in a short, sharp, jerky way. A good deal of pain in right side. P. 94, very weak. Right chest was absolutely dull from fourth rib down, both in front and behind, and above fourth rib the resonance was impaired. A few, squeaking, harsh rhonchi heard on auscultation. Vocal resonance and fremitus very slight compared with other side. Liver dulness not increased downwards. Apex beat vertically under nipple in fifth space.

Aspirated with a large needle in seventh space, just behind angle of scapula. After Oj was drawn off, the needle became blocked, and had to be withdrawn. The patient was a good deal relieved, and the absolute dulness only extended as high as seventh rib.

The man was put on ʒiv. brandy, ʒiv. port wine, milk *ad lib.*

He was easier for a time, but became distressed towards evening. P., 110°; R., 36; T., 97·4°. The pus was peculiar, and resembled more a mucous than a serous fluid. It flowed with difficulty through the needle, which it finally blocked, and came out of the aspirating bottle in great flakes, which passed through its neck with difficulty. It was also of a pinkish brown colour.

August 15th. Still in considerable distress. Dulness all over front and back of chest. His temperature, 97°; pulse, 110; and very weak. Breathing, 33, jerky and shallow; lying on his right side.

Mr. Prentice commenced to give chloroform, but the patient took it so badly, that he desisted, and as soon as the excitement it caused had passed off, I opened his chest in the eighth inter-costal space, immediately below the angle of the scapula. There was a flood of pus, of which we caught in basins seven and a half pints, a good deal more being spilled in the bed. The pus, though resembling that of yesterday, was much more serous in character, more yellow in colour, and less tenacious.

The patient was slightly relieved, but his pulse was 130, and very fluttering and irregular.

He was ordered ʒiii. of brandy every half-hour through the night, with as much milk as he would take.

August 16th. Pus had escaped through the dressings, and soaked everything during the night; and at the dressing this morning, at least half-pint of pus escaped. I employed a large-sized Morrant Baker's india-rubber tracheotomy tube to drain the chest, which answered admirably. It was tied round his chest by tapes, fixed to the collar of the tube.

The man was extremely bad; his pulse, 136, was feeble and irregular. There were large moist râles and rhonchi to be heard all over the left lung. The right side gave a boxy, empty, resonant sound on percussion, and squeaky, high-pitched rhonchi on ariscultation.

He continued to lake large quantities of milk, with brandy, eggs, and beef-tea.

August 17th. Became much worse last night; passed yellow liquid fæces frequently into the bed.

Sweating copiously and struggling for breath. Pulse, 148, hardly perceptible.

T., 102·2°; R., 42. Nose and ears particularly, and to a less degree the whole of his face, very blue. Died at 11.35 p.m.

Post Mortem Examination.

Kidneys and *Spleen* and *Stomach* healthy. Some few old adhesions between spleen and parietes.

Intestines. External surface appeared healthy; unfortunately, I did not think of opening them (the history of diarrhœa was only obtained afterwards).

Heart healthy. A little fluid in pericardium, the anterior surface of which was attached to the heart by some old adhesions.

Valves competent. Aorta healthy, but there was a big, rough, calcareous deposit at the angle of its bifurcation into the common illiacs.

Left Lung engorged with blood, and very œdematous, otherwise it and its pleural covering were normal.

Right Lung quite collapsed and entirely airless, sinking in water. The pleura covering it yellowish, and with patches of recent lymph on it. The base was firmly adherent to the diaphragm, and through diaphragm and outer margin of base of lung was a ragged opening about large enough to admit a pen-holder.

Liver appeared of natural size and position on opening the abdomen.

Its left lobe was normal, but in the upper part of the right lobe was an abscess cavity as large as a fœtal head, containing a quantity of thick pus. Its walls were ragged and irregular, and thinned in many places towards the diaphragm, to which the whole upper surface of the liver was closely adherent.

One ragged opening connected the abscess cavity with the pleura on the right side, the base of the lung being traversed by the sinus for a short distance.

No marks of syphilis about the body.

The tube which I left in situ had the curve so directed that its lower opening was directed down and back to the lowest part of the pleural cavity. It was not bent on itself, nor did its mouth become occluded by meeting the lung.

Previous History.

I obtained the following particulars from his wife concerning his *previous history:*

He was a soldier about twelve years ago, and served for five years in India, but was never ill whilst there.

Has been a hard drinker, but has always drunk beer mostly.

Has been married five and a half years. His wife has had three children born alive. No miscarriages. One child died of diarrhœa, the others are alive and well. Thirteen months ago was sent to prison for three months, and whilst there began to suffer from diarrhœa, which has never left him since. Often he has gone to the closet as many as twelve times a day. The stools resembled mustard and water, and occasionally contained blood, but never more than a few streaks.

A hard, dry cough came on about two weeks before I saw him.

I could learn nothing of his family history.

Remarks.

With regard to the diagnosis of this case, it never once occurred to me that the man might have an abscess in his liver. That he had some

pleurisy, followed by extremely rapid effusion, and that this effusion was in great quantities, and purulent forty-eight hours at most, and probably much less, after its appearance, was surprising; but I supposed it due to his low state and half-starved condition. I suppose fluid rarely becomes purulent so quickly when it arises from pleurisy alone. The characters of the pus on the first aspiration, which are described, I found afterwards nearly answer to the book description of pus obtained from abscess of the liver, although the colour was of a pale, pinkish hue, rather than chocolate, and its marked viscidity is not mentioned in any description I have seen.

The adhesions of lung and liver to diaphragm was evidently of some long standing. The cough, about three weeks before, probably due to this adhesion, or to the lung being gradually penetrated by the abscess, whilst the small opening in the diaphragm accounted for the rapid filling up of his chest, and for the large amounts which continually drained away.

If the liver dulness had extended for some distance below the ribs, it would only have been what one would have expected with so large an effusion. Perhaps, as it did not, however, in spite of the full chest, it should have suggested a liver bound in its place by extensive adhesions, as was the case. I should think the dulness, first noticed on August 12th over right base, was due to enlargement of liver upwards, and to the chronic adhesive pleurisy around diaphragm and base of lung; but this, of course, did not occur to me at the time. The quantities of pus evacuated surprised me somewhat, but one is accustomed to see such large quantities from empyemata, that I did not expect any other source than the pleura for it.

The man's previous history, I regret to say, I did not obtain until after the *post-mortem*, and as it throws some light on the case, it will be a warning not to despise previous histories in future. Had I known of the diarrhœa, I should, I think, have considered both it and the pleurisy tubercular; but the chief regret is that I never opened the intestines and searched for ulcers or other lesions.

Finally, I think the case was one which would only have been diagnosed in our Clinical Ward; but attention to some of the points about it will help me at any rate to get nearer to any similar case, should I be fortunate enough to see one.

With regard to the treatment, the question arises—could anything more have been done had the case been correctly diagnosed? I very much doubt it. Theoretically, it might have been possible, having removed a piece of one of the lower ribs, to have enlarged the opening in the diaphragm and liver, and drained the abscess directly by a large drainage-tube. In practice, however, this proceeding would have been surrounded by all kinds of difficulties—such as finding the original opening in the diaphragm, or, failing this, having to make a new opening through into the liver, which would, perhaps, have opened up the peritoneal cavity.

Then would have come the difficulty of draining one large cavity within another. Besides, the man's condition was such as to make a tedious and difficult operation unjustifiable.

I should like to add about the drainage-tube I used, and of which I have already spoken, that of all the various tubes I have seen used, this seemed to act most efficiently. I had the advantage of seeing the tube in situ at the *post-mortem*, and it appeared that the cavity could not have been better drained than by it.

There is a very deep gutter in the cavity of the thorax, of which the lowest depth about corresponds with the angles of the ribs. I never noticed it particularly before, but I found that fluid in the cavity of the chest was always deepest in this gutter as long as the body was not turned further on to the same side than

when its transverse axis became perpendicular to the table. Now the mouth of the tube dipped into the lowest part of this gutter an inch or so from the diaphragm, and therefore was placed most advantageously to drain the cavity in any position of the patient, except when lying on his face, the only objection being, that it reached rather too near the diaphragm.

By using a tube with a natural curve, no abrupt bend could be caused by expansion of the lung, which bend would more or less destroy its patency. Or, supposing the tube does not so bend, then its orifice becomes occluded by the lung. It is now generally the custom not to cut holes in empyema tubes, as these admit the ingrowth of spouting granulations, which block the lumen of the tube, and in this respect, therefore, a Morrant Baker's tracheotomy tube also answers well. SIDNEY WACHER.

Hospital News.

INTERESTING CASES IN MEDICAL WARDS.

1 Philip—Malignant Jaundice.
9 ,, Severe Erythema of obscure origin.
15 ,, Thoracic Aneurysm.
17 ,, Disseminated Sclerosis.
32 ,, Chronic Intestinal Obstruction.
35 ,, Malignant of Fauces.
7 Stephen—Hemiplegia.
9 ,, Pneumothorax.
36 ,, Spasm of Face and Arm.
20 Mary—Acute Nephritis.
27 ,, Congenital Spastic Paraplegia.
29 ,, Ascites—cause obscure.

INTERESTING SURGICAL CASES.

12 Lydia—Tumour of Nose.
11 Job—Stricture of Æsophagus.
21 ,, Epithelioma of Rectum.
23 ,, Traumatic Epilepsy.
19 Lazarus—Adenoid growth of Naso-pharynx.
4 Naaman—Multiple Tumours of Face and Body.
4 Luke—Laryngeal Ulceration? Syphilitic.
16 ,, Bronchocele.
20 Charity—Aortic Aneurism.

NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

IV. TUBERCLE (*continued*).

Causation of Phthisis.

1. *Hereditary taint.*

2. *Exposure to cold and wet.*—By Buchanan's investigations as to the condition of soil predisposing to phthisis, it is undoubtedly proved that it is more prevalent where the soil is composed of clay, or where the *surface water* is of necessity in excess. When districts presenting these conditions have been drained, phthisis becomes far less prevalent.

3. *Mal-hygiene—i.e.*, over-crowding; bad air; and insufficiency of food. An important point in connection with this is, that in Iceland phthisis is unknown, and yet these conditions are fulfilled there to an extreme degree. The fatty nature of the food there is supposed to be the preventing cause (?). But as regards *this* country, at least, there is no doubt that these conditions operate in the production of phthisis. The much-diminished mortality from phthisis amongst soldiers since their barracks have been ventilated is proof.

4. *Noxious trades* (Cf. Grinders' Phthisis).

5. *Alcohol* (Dr. Moxon).—Not proven, except that no doubt the chronic drunkard is more liable to disease.

6. *Syphilis.*—The evidence in favour of the causation is not conclusive. Cases of chronic phthisis with much fibroid growth have been found, associated with gummata in the liver, testis, and other organs; which last are, of course, absolute proof of syphilis. And it is supposed that the phthisis has been due to syphilis, and has had its fibroid character stamped upon it by that disease. Nodules like gummata have been described in the lung; but histologically they are of course undistinguishable from tubercle, and, further, they have always been found in the upper part of the lung. The best proof is, that now and then such cases get rapidly well under anti-syphilitic remedies (Dr. Moxon).

7. *Diabetes.*—No doubt ordinary tubercular phthisis may occur in diabetes, as in any other disease. But it is rare to meet with anything like tubercle in this disease. In a series of cases tabulated by Dr. Fagge, 17 out of 40 cases of diabetes died of phthisis. In 12 out of the 17 no tubercle was found in the body. The probability is, that the so-called *diabetic phthisis* is pneumonic and non-tubercular in most cases. The disease is characterised by rounded patches at the apex or base of the lung (very frequently the latter), which are the size of a hazel nut or larger, and in which a cavity rapidly forms containing a central slough. In other

words, the disease resembles the boils and carbuncles common in diabetes. Dr. Goodhart's name of *necrotic pneumonia* is probably more applicable than phthisis. Still, however, it must be remembered that true tubercular phthisis and tubercular deposit in the intestines and elsewhere may be met with in diabetes.

Prognosis of Tubercle.

There is not the slightest doubt that tubercle sometimes undergoes cure. Scars and caseous nodules, surrounded by fibrous tissue and calcareous nodules, are constantly being met with at the apices of the lungs in patients who have died from other diseases, these nodules being the result of ancient tubercle.

Bristowe believes that even small miliary tuberculosis undergoes retrogression. He describes the lung in such cases as seamed throughout with minute stellate cicatrices, and the pulmonary tissue around, spongy and coarse from consequent emphysema. This statement may be compared with the fibroid transformation of tubercle, described above (q. v.)

ACUTE LOBAR PNEUMONIA.

Presents 3 stages—

1. Engorgement.
2. Red Hepatization.
3. Grey Hepatization.

To which have been added two others:—

(*a.*) A stage of simple hyperæmia antecedent to the first.

(*b.*) A stage called by Dr. Wilks "purulent infiltration," which, however, is generally described under Grey Hepatization.

1. *Engorgement.*—The lung is more bulky, it pits on pressure, it is of a deep red colour; and on section abundant blood-stained frothy fluid escapes; and it is more readily broken down than is usually the case.

Microscopically.—The vessels are gorged with blood, and a few cells are found in pulmonary alveoli, probably derived from epithelial lining, the cells of which are seen to be swollen and proliferating.

2. *Red Hepatization.*—Lung is bulky and much heavier than normal; invariably there is some amount of pleurisy varying in degree from a mere loss of polish of pleural surface to a thick layer of plastic lymph.

On Section.—The colour is mottled red with pigment (*N.B.*—Colour is not a P.M. change) of very great intensity. The surface is not smooth but minutely granular. The long tissue breaks down with very little pressure. Portions of lung sink in water. The swollen bronchial tubes are full of muco-pus.

Microscopically.—The alveoli are fitted with plugs of fibrin, of which the fibrils can be made out. In the meshes of this fibrin, cells of different kinds can be made out, red blood cells: leucocytes; epithelial cells; these latter being found in greater numbers at the periphery. The walls of the alveoli are thickened somewhat by leucocytes in connective tissue. Lastly, the blood-vessels are engorged with blood.

As the inflammation progresses the epithelial proliferation becomes a prominent feature. The alveoli in consequence become more and more distended. This presses the blood out of the vessels, the red colour in consequence is lost, and then ensues

3. *Grey Hepatization.*—In which the lung is bulky, heavy, yellowish-grey in colour, mottled with pigment. Pleurisy still present.

On Section.—Colour is yellowish-grey mottled with pigment, granular on surface. Breaking down on pressure more readily. Tubes copiously exuding muco-pus.

In most cases the stage of purulent infiltration is included under this head.

In this condition the exudation has undergone "fatty degeneration," and broken down into a purulent fluid; we may meet with every degree of this condition till the lung may be described as a sponge soaked with pus.

Microscopically.

(*a.*) The blood has nearly disappeared from the vessels.

(*b.*) The fibrinous plugs have broken up into fatty granules.

(*c.*) The red blood cells have also disintegrated and practically the alveoli are occupied with cells undistinguishable from leucocytes, and epithelial cells more or less on the way to become leucocytes. The cellular elements filling alveoli are partly derived from blood, partly from epithelial proliferation.

It is important to note that acute pneumonia may clear up without there being a trace of sputum from beginning to end. It is supposed that the products of inflammation, having undergone fatty degeneration, have been absorbed by blood-vessels; and the question is raised, whether this is not the normal process of resolution, and whether the condition of purulent infiltration is not necessarily fatal.

Termination of acute pneumonia—

1. Resolution.
2. Abscess.
3. Gangrene.
4. Chronic Pneumonia or Cirrhosis of Lung.

Abscess is excessively rare as a result of Lobar Pneumonia, and is invariably found in the Lobular Pneumonia resulting from Pyœmia.

Gangrene is also a rare result of acute pneumonia. Perhaps it is most frequently found in the super-acute Pneumonia, resulting from immersion; but it must

allowed that it is an occasional result of Pneumonia. In fact it is very doubtful whether pulmonary gangrene ever arises without such an antecedent.

Taking the question of gangrene generally, it has the following causes in addition. It occurs:—

1. Around masses of pulmonary tubercle.

2. In cases of thoracic aneurysm and mediastinal tumours, which press upon the Trachea and Bronchi.

N.B.—In this case the question arises as to whether the gangrene results from pressure on the vagus and the consequent withdrawal of its trophic influence on the lung; or whether the gangrene is due to accumulation of secretion behind the obstruction, and its subsequent decomposition. Certainly this last view is probable from the consideration that the commonest cause of pulmonary gangrene is septic poisoning, as from æsophageal cancer ulcerating into the lung: from embolism in suppuration of internal ear, and Thrombosis of sinuses of Dura Mater, or from round substances capable of decomposition, sucked into the larger air passages (pieces of bone in two cases in Guy's reports, vomited matter, &c.)

3. Pulmonary Infarcts.

Appearances presented by gangrene of the lung:—

1. There is in most cases a zone of pneumonia into which the gangrenous part passes insensibly, but sometimes this zone is absent.

2. The gangrenous part copiously exudes a brownish green extremely fœtid fluid.

3. The gangrenous lung tissue is soft, often diffluent, and also fœtid.

Microscopically.—The lung tissue is everywhere broken down, and, in the most advanced parts, consists of granular detritus.

Gangrene of lung must not be confused with fœtid bronchitis. In some cases of chronic bronchitis with dilated tubes, the retained secretion undergoes chemical changes, which cause the sputa to give off the odour of gangrene.

The tubes in these cases are occupied by plugs which are called "Dittrich's Plugs." These are composed of granular matter, degenerated epithelium, and a large amount of crystals of the fatty acids (Butyric acid chiefly). These plugs are yellowish brown in colour, and protrude from the divided ends of the tubes.

Chronic Pneumonia.

It has already been stated that most cases of chronic pneumonia (*i.e.*, chronic fibroid phthisis) are really cases of chronic tuberculosis. But there are some few cases which commence with an attack of acute pneumonia, which never entirely clears up, and in which the patient ultimately dies and his lung is found in the following condition:—

1. Pleura immensely thickened, and this thickening extends to the pleura between the lobes.

2. Lung is greatly reduced in size, firm, dense and fibroid, greyish in colour and mottled with pigment and more or less airless.

3. The other lung is healthy.

4. There is no tubercle in the body. This is the condition described (by Dr. Wilks) as "Cirrhosis of Lung." The view given by Dr. Wilks is that the primary disease was pleurisy, causing the thickening of this membrane, and that from the thick pleura the fibroid tissue invaded the lung in all directions; first passing into the lobe, and then between the lobules, and ultimately between the alveoli. It appears, however, certain that there are a few cases without such thickening of pleura, and therefore, it is probably true, that pneumonia in some few instances gives rise to a chronic disease.

(To be continued).

Correspondence.

To the Editor of Guy's Hospital Gazette.

Sir,—Might I suggest through your columns that the present hour for *post mortem* examinations be changed to some other, either earlier or later. Under the present arrangement the examinations are held at the very hour when every one is, in all probability, engaged elsewhere; for at half-past two the Physicians and Surgeons are going round the wards, and the Assistant Physicians and Surgeons are seeing their out-patients. I would suggest, as an alternative, twelve o'clock. About this time one's morning work in the wards is either completed, or is interrupted by the Patients' dinner hour. Under the existing arrangements not one half of those who would wish to, are able to avail themselves of our exceptional opportunities for studying Pathology.—I am, &c.,

P. M.

POSSIBILITIES.

Dear Sir,—A few days ago I was in the Carpenter's work shop under Accident Ward, and there I saw an ordinary fire grate, in which an open fire was burning, some two feet from the ground, while beneath it was a slight fender not more than six inches high and extending not more than eighteen inches from the wall. On the floor, not more than four feet from this fire, was a heap of shavings, while the remainder of the room was filled with dry wood. While I was standing there the Carpenter was called out by some one of the authorities, and the fire was left without any guard for the time that he was out. It is not beyond the bounds of possibility that a red hot coal might have fallen into the heap of shavings during his absence; it is not impossible that the whole place might have been in flames in five minutes; it would have been impossible to have extinguished it directly; it is not impossible that the Engineer (or whoever he may be) might have been away at his dinner at that hour; it is not impossible that those hoses one sees hanging on the walls are out of order and are too short; it is not impossible that there would be considerable delay in getting the water turned on; it is not impossible that all the Surgical buildings would burn like tinder. It is possible that I am only an alarmist; on the other hand it is possible that more lives would have been lost than were lost a few nights since at the Exeter Theatre.—I am, &c.,

X.

Passim.

The subject of the Paper to be read by Mr. Beddard at the opening meeting of the Physical Society, on Monday evening next, will be "Some recent Contributions to the Theory of Evolution." It has very wisely been decided to throw open the new Club on this occasion, so that the proceedings may be regarded as a kind of "house-warming" ceremony for that Institution. Tea will be served to all who care to partake of it, at 7.30, in the dining-room of the Club.

The other two rooms will be utilised for the exhibition of surgical instruments, microscopic specimens (chosen by the Pathological Committee of the Society), Pathological drawings from the Museum Collection, and Photographs contributed by Guy's men. Messrs. Stanley have also been invited to exhibit Photographic Apparatus. The Presidents are glad to avail themselves of this opportunity of thanking those gentlemen who have kindly responded to the invitations given in our last number, for the interest they have shown in the success of the undertaking, and for several valuable suggestions.

We have received a letter from one of our most skilful artists, who points out that most of the pathological drawings and paintings are made at the request of members of the staff, and are either in their possession or bound up with the hospital reports. This is a difficulty which had not occurred to us. May we add that any member of the staff who, on reading this paragraph, recollects that he has any drawings in his possession likely to be of interest, will confer a great favour upon Guy's men by leaving them at the hospital on Monday morning, so that they can be added to the list of exhibits?

It has been decided by the Presidents that there shall be no general discussion by the meeting of the subject treated of in Mr. Beddard's Paper. It was considered that as this would necessarily curtail the time at the disposal of the reader, possibly without adding essentially to the interest of the proceedings, it would be better to make this arrangement. We trust, however, that our Chairman on this occasion will, as is his custom, not omit to favour us with a few well-chosen remarks. Dr. Wilks is a man to whom all Guy's men are glad to listen on any and every occasion.

This reminds us that we learnt the other day, quite by accident, that there are still a few copies of Dr. Wilks' republished "Lectures on Medicine" to be obtained. They are sold by Mr. Williams, at the counting-house, for the modest sum of three and sixpence, and, need we add, are well worth the money. It is with pride that we remind our readers that they first appeared in the pages of the Guy's Gazette, in the years 1883-4. We were, ourselves, under the impression that these Lectures were now unattainable, and are glad to be able to state that this is not really the case.

Drs. Frederick Willcocks (of Charing Cross) and George Carpenter (of the Evelina Hospital) have contributed an interesting paper to the *Practitioner* on the subject of Rötheln, with special reference to a recent limited outbreak which came under their observation. Altogether eleven cases are recorded, some very fully, others in less detail. Among the patients were three medical men, viz., Mr. Alfred Lingard, Dr. Albert Martin, and Mr. L. D. Meares. In several cases the patient was only exposed upon one occasion to the risk of infection, so that there were special opportunities of observing the period of incubation. It was found to vary in this outbreak between eight and seventeen days. The extremes usually given are from six to twenty-one days (Hardaway), and this statement is borne out by the cases here considered.

It must be remembered that the invasion of rötheln is very indefinite. Sometimes there were no symptoms until the appearance of the rash. In one case, however, there had been a "severe cold" for a week previously. It is noticeable that the patient in whom this occurred had never had measles. The writers are of opinion that rötheln is closely allied to measles, if not merely a modified form of it, and that it bears no relation to scarlet fever. None of the children in the wards of the Evelina were affected by it. "On the whole, a careful review of these cases has led us (the writers) to think that the facts in favour of rötheln being a specific morbid entity entirely distinct from measles are not in all points satisfactory, and it seems probable that the evidence on the subject may require re-consideration."

RASAE ASPERGILLI.

Being Shavings from the Log of Mr. L. Epispasticus, late Surgeon to the s.s. "Aspergillus."
(Continued).

Not exactly a Dispenser in the ordinary sense of the word. He was the head subordinate, and chief bottle-washer of our Medical Superintendent. He presented an appearance of eminent but dilapidated respectability. A decayed, or, at least, not brilliantly novel form of top-hat, over a lop-sided face, full of the beaming dignity of office, was graced by iron-grey whiskers and some stumpy teeth, a corrugated frock-coat and plaid trousers. The description is vague perhaps, but this important personage needs one, acting as he does as a sort of Charon, or guide of newly arrived souls about to flit over unknown ponds of Bromine and Pot. Iod.

"Chlorals of Hydrate, Assytums of Scillæ, Pills of Hide, Pills of Calummy, Pots of Carb., Sods of Carb.," said the Dispenser, as he handed in under names unknown to the B.P. various drugs supplied for the voyage, which I had to check off on a sheet. The drugs are kept in a locker divided into little compartments in the cabin, and the wary inmate had better plug the intervals between the bottles and their nests with tow or paper if he does not want to be kept awake by a chiming pandemonium of clinking glass when the sea is rough, and the bottles wobble. The drugs supplied form a very adequate little Dispensary. The largest in quantity are Mag. Sulph. Lini Farina, and Mist. Sennæ; firemen and sailors being especially addicted to the latter. After stowing the drugs and signing the check-sheet, I was at liberty to stow my own luggage and then look around. My cabin was on the starboard side, on deck, aft of the Captain's—quite in the west-end of the ship. Size, seven feet by six by six. Three large drawers occupied the space under the bunk, which was atop, running antero-posteriorly (fore-aft) and on the side nearest the median line of the vessel. A sort of sofa or couch ran half under the bunk and half outside, at the anterior end of the compartment, at right angles to the bunk. A wash-stand hooked to the posterior (stern) wall of the cabin under the drug-locker; a water-bottle and brush-comb rack over the sofa, another drawer over the latter, and a lamp-bracket, completed the furniture of the apartment. The tins of Mag. Sulph. and Lini Farina were fixed between the wash-stand and bunk, in a convenient place to form a saline bath, and an emollient application, when a sea should be shipped into the cabin, as on some vessels frequently happens. The door opened on to the deck about three feet from the ship's side, opposite some brace or other structure going up to the main-mast, which for short may be designated the apparatus ligamentosus colli. The apparatus ligamentosus colli was very useful to hang my canary-cage on, but so far as I could see fulfilled no other useful function. After arranging my chattels, I assumed the insignia of rank, namely, a nautical dark blue cloth hat, and sallied forth, trying to look like an old hand, and as much at home as possible. An individual with fiery red whiskers and suitable face was rushing up and down from the corpus callosum, as I named a transverse structure spanning the ship sometimes called the bridge, and looking very busy and important. As he was not swearing I thought he could not be the captain. On the corpus callosum itself was a nice-looking grey bearded man, who looked pretty official and sea-beaten; accordingly I introduced myself as the new surgeon, and called him captain. Just then the hæmoglobin-faced man came up and he said *that* was the captain, he was the pilot, and a very good pilot too. A rule for the diagnosis between a pilot and a captain on this line can hardly be laid down, as they neither wear any uniforms. But a very profound and far-away ominiscient sort of look generally characterises a pilot, together with an oracular monosyllabicism of utterance, and a composed and sedate movement to and fro. The captain on the other hand is more energetic and vigorous. He walks rapidly about, often clapping his arms like a cock going to crow; indeed

his gestures often approach an absolute hilarity of demeanour.

Here it may be as well to introduce an anecdote about Baron Huddlestone, as it has nothing to do with the subject. It refers, however, to the Prince's Landing Stage, when speaking of which this tale had escaped my memory.

Those who have heard it before, please move on. On the occasion when the trial took place concerning the great fire which so rapidly destroyed the whole of this magnificent Stage some years back, Huddlestone was counsel for the prosecution, the aim of which was to fix the act upon the prisoner at the bar. It was expected the trial would be long and difficult, but Huddlestone's line made it theatrically short and brilliant. He would call only one witness, whom he examined thus—

"You were at (such-and-such) a place at the time when the fire broke out?"

"Yes."

"Did you see anybody on that occasion?"

"Yes."

"Whom?"

"The Prisoner at the Bar."

"What was he doing?"

"He was running away from the direction of the Stage."

Counsel for the defence objected to this question, submitting that what the man said could not be received as evidence. Huddlestone was prepared for this point, and sitting down, left it to his Junior to prove that such was admissible

The point having been decided in his favour, Huddlestone proceeded:—

"Did he say anything to you?"

"Yes."

"What was it?"

"He said, '*My God, I have set the Stage on Fire!*'"

"That is my case, my Lord, for the Prosecution," said Huddlestone, and sat down.

I have rather a leaning to legal anecdotes, and if I can find any more, will salad them among the other portions of this thrilling narrative. The above, in the suddenness of the dénouement and the completeness of the proof, is a splendid instance of forsenic ability, and so I am particularly fond of it. What it is inclines one toward our Profession more than another, it is hard to say; but perhaps because my mother was often engaged in lawsuits, I have a sort of hereditary leaning to law; perhaps partly from initation, for so many of my friends have gone to the Bar—are always going there in fact. There was one (Bar) on board, I was informed, but I suspected its existence to be purely mythical. It was, the Purser said, open and shut at regular hours: not so long on Sundays. But I could never find it. The symptoms, which might be had anywhere (3s. 6d. a bottle) were most favourably to be studied in the purser's cabin. They were concrete enough. But the bar was an abstraction.

Perhaps on board steamers going long voyages it is as well to discourage imbibition of $C_2 H_6O$ as much as possible. On the Ocean Puff-Puff Steamers grog was not allowed. The Firemen had oatmeal and water, which they drank always to great excess. The officers and men could buy whiskey at 3s. 6d., brandy at 6s. a bottle, and rum and gin, all of the best quality, and bottled beer. But every order was written and kept account of for the inspection of the authorities at home. So that there is no drunkenness same as among passengers. These grumbled at the high price of wines and spirits; but they are, according to nautical views, born, or borne, only to be fleeced; they are expected to grumble. A captain has been known to put back to port rather than carry anything so unusual as a passenger who was contented. No doubt placidity is recommendable on land, but at sea it is inharmonious. The waves rustle eternally, the engine thumps incessantly, the cordage rattles without ceasing, the masts shiver, and the ship constantly rolls and pitches, and it is unreasonable to expect anything but equal unrestfulness from humanity. Accordingly the passengers grumble, the officers walk up and down automatically all day and night, the firemen and sailors swear, and all things are in harmony. But to appreciate fully the proper concord of eternal discordance, and to glide your soul on in full placid peace with the never-steady and always unreasonable elements, there is one agent and only one at hand.

Al-Kohl, blessed Al-Kohl! spirit that stealest insensibly upon one, and with the bright wand of magic influence dispellest, like the morning clouds melting from the blue hills before the early sunbeams, the dull vapours of responsibility from the cerebral cortex, lighting up the thoughts and remembrances of thousands of multipolar little cells with the prismatic glories of new-born imagination, in the new medium of irresponsibility in which human life becomes indeed divest of trouble, and divine, to thee I pour this apostrophe as the presiding genius of the enchanted deep!

How curious it is that all the chief sources of pleasure in the individual, when pursued to excess, are sources of such destruction. The pleasures of mankind seem to resemble the vibration of rays of light, altered and

limited according to the medium they pass through, so that the catalogue of them is as mixed with disasters as the coloured bands with darkness-fringes of destruction on the precarious film of a soap bubble. Perhaps the evil effects of the pursuit of physical pleasure are useful as the means of weeding out from the race the individuals who progress no more, because they prefer to rest; and in this sense alcohol becomes both a personal delight and a social blessing. Hence aptitude for drunkenness is an act of self-denial; and the confirmed inebriate, instead of being treated with contemptuousness or restraint, should, like the victims of the ancient priestdom of Ixacatl, be feasted and garlanded, and finally offered up at the summit of the social pyramid, as the supremest example of patriotic self-denial.

He might, for the advantages of Physiology, be cut open with the sharp razor of *Itzli*, or what not, as they used to do in *Ahuyatepotl*. What opportunities had these blood-thirsty scoundrels to study cardiac movements! With their sharp razors of stone (Prescott relates) they cut open the chest through the costal cartilages, and raising the breast bone like a lid, tore out the living and pulsating organ from its bed. *Ixacatl* and *Ahuyatepotl* are, it is only fair to say, names of my own, but they sufficiently resemble Tlascala and others to be found in that fascinating conquest of Mexico, to pass current for the present. If there were no names exactly spelt so, there might have been.

Meanwhile, the Aspergillus has been towed out of dock and some way into the river, down which, with a gravity worthy of the event, she slowly steams to take up an anchorage ready to start finally on the morrow.

(To be continued.)

Researches on a Decapitated Head.—MM. Paul Regnard and Paul Loyé, in experiments made on a head recently severed from the body, have obtained the following results:—No sign of conscient life was observable two seconds after decapitation. Reflexes were obtained by irritation of the cornea until the sixth second. This is claimed as a new observation. The heart beats persisted for 25 minutes in the ventricles, and one hour in the auricles. The remains were so immobile that it would have been possible to believe in merely having beheaded a dead body, had it not been for the reflex action of the eye, the contraction of the jaws, and the ejection of blood from the carotids. Death must have been calm and without agony. It was not death by asphyxia, but rather death by inhibition.—*London Medical Record.*

PHILOSOPHIA MEDICI.

REFLECTIONS AND NOTES

By Walter Moxon.

1857 to 1869.

IV.

To know right from wrong is the test of sanity in English law. It does not, and, I think, should not, enter on the question of whether the influences that tend to keep an individual's acts right or make them wrong has this or that degree of power relative to his strength of will, but only, whether he could know. If he knows what is unlawful, unhappy is he if he does not do it. The law admits of *provocation*, and that is enough, and dear enough; for if we go aside from the mysteries of insanity, and allow that knowledge exists in the criminal, it is for any one of us who has similar knowledge to say whether this or that motive ought or ought not to lead to an act, due allowance for everything being fairly made. The instincts of the mass must be left to purify the mass The reflections of individuals in the cause of personal sentiment of mercy, or any other good thing, must not lead us to cherish among us those who have, and transmit, false specimens of that most essential social balance which weighs motive for good or evil.

Life is *a priori*, inanimate nature *a posteriori*. One follows the lead of reason, the other is driven before the power of cause. We physicians must learn to further reason rather than help the acts of cause, which are only powerful on dead matter, or only on the living, so far as it is dead.

All men reach at some time the feeling that there is no more worth knowing. That is mental death. We are valuable in proportion as we reach it later or earlier.

I doubt exceedingly whether any one ever did or could live this life without a feeling in him of a possible future larger enjoyment of a different sort from all he ever yet experienced—so far, at least, a different sort, that he could realize the expectation of much freshness and great progress.

To be able to grow is the sign of an imperfect thing, says Seneca. This is true, but if so, it is the best sign about it. Yet we all aim at perfection in the love of growth.

Whom do you envy? Can it be right to reject all human work and life? Look to it; avoid laziness; mix in human interests; choose the good; enough of rest remains.

'Tis faith that nerves the marksman.

In the same pasture the ox chooses the herbage, the rook the worm, and the dog chooses the hare. Yet, how very like! the tissues of each of these, whose tastes and nutriment differ so.

By concord little things increase; by discord great things are demolished.

The goodness we admire and love is got by personal influence.

Gravitation cannot be more powerful than the mighty influence which brings back the bee to her hive and the wild beast to his lair, and binds the good man to his home and to his country.

All error is some form of sloth.

Memory is the only Goddess of Justice—rightly tempered with mercy are her judgments. She knows that her clients are dust. The myriad-disturbing circumstances that are at work whilst the physical contingency lasts discompose the judgment of all our faculties which deal with the present.

Nothing casts more shadow than it gives light, or gives more light than it casts shadow.

To languidly bemoan one's defects is a vain and a painful mortification when one is 30. There only remains to turn about, and see how in nature advantage is taken of defects to make them useful. Turn your failings to some good end if you can.

Misplaced mercy is cruelty to somebody.

A weed is a flower out of its place. They are not weeds on the railway cutting, nor on the roadside hedges; they are flowers there.

Prosperity tries you this way—that it tends to find out and bring forward what is bad in you. Adversity tries you, too, but another way—that it tends to find out and bring forward what is good in you. So, after all, adversity is the kindest and best mode of trial.

Sport.

THE PAST CRICKET SEASON.

Matches Played 18. *Won* 9. *Lost* 6. *Drawn* 3.

The Cricket Season is now over, and, on the whole, we may congratulate ourselves on having been fairly successful in our Club Matches. Amongst the clubs we defeated, we find Reigate Hill, Richmond, Brentwood, and the United Hospitals, our reverses being at the hands of powerful combinations like the Crystal Palace, Beckenham, Streatham, Bickley Park, and Mitcham.

The great event of the Hospital Season, viz.: the Inter-Hospital Cup Competition, resulted for the *fourth* consecutive year in a win for Guy's, though, for reasons still fresh in the memory of all of us, it is only recognised as our third consecutive victory by the United Hospitals. Considering, however, the purely technical character of the grounds for our disqualification last year, we feel justly proud to think that for four consecutive season our cricketers have not found their match amongst the London Hospitals.

In batting the team has been stronger this season than ever before, though C. D. Rygate has shown a most unaccountable falling off, which changes his position from the very top to the bottom of the list of averages, whilst in bowling the brunt of the work has fallen upon Rygate, W. G. Mitchell, and Bolus. In the other department of the game, however, viz.: fielding, we regret to notice a great falling off; for, though the backing up has been good, the clean pick-up and smart return so noticeable in previous years have been too frequently absent altogether. This is, in some measure, attributable to the fact that we have frequently been compelled to put very weak teams into the field, and that we have been, owing to an accident, without the service of Busteed, our regular wicket-keeper, in many of our matches.

Next season, all the efforts of the cricketing men of Guy's will be needed if they are to retain their present position, as they will lose the services of four of the safest members of the team, viz.: Scott, Fripp, Bolus, and Rygate. This season we found it impossible to re-place the steady bowling of Cruickshank; next year we shall have to do without his great *vis-à-vis*, Rygate, and it will be a good many years before any Hospital team can boast such a fine pair of bowlers—bowlers who, among several brilliant performances, it will be remembered, in last year's Cup ties, dismissed a whole team for three runs.

Scott, too, will be a simply irreparable loss; his consistent run-getting, clever and unimpeachably sportsmanlike captaincy of the team for two seasons, and untiring energy, have earned him a reputation of being—though we say it ourselves, we are convinced that all the cricketers from other Hospitals who know him would re-echo it—the finest cricketer and the most dangerous bat ever produced by the Hospitals.

During his four years cricket for Guy's he has made 497 runs in Cup matches for sixteen times out, thus having the splendid average of just over 31 runs per innings.

The Batting averages read as follows:—

	Aggregate	No. of Innings.	Times not out.	Most in an innings.	General average.	Cup Tie average
F. Colclough ...	224	10	0	85	$22\frac{2}{5}$	$14\frac{1}{3}$
W. J. Scott ...	403	20	1	102	$21\frac{4}{19}$	28
A. D. Fripp ...	278	16	1	60	$18\frac{8}{15}$	26
H. B. Bolus ...	248	15	1	45	$17\frac{5}{7}$	$21\frac{1}{2}$
W. G. Mitchell ...	299	18	1	59	$17\frac{10}{17}$	$11\frac{1}{2}$
E. J. D. Mitchell ...	249	16	1	59	$16\frac{9}{15}$	$19\frac{1}{3}$
H. J. Roberts ...	172	13	1	47	$14\frac{1}{3}$	$17\frac{2}{3}$
F. M. Russell ...	160	16	4	81	$13\frac{1}{3}$	$11\frac{1}{2}$
W. G. Featherstone	145	19	3	33	$9\frac{1}{16}$	12
C. D. Rygate ...	43	10	1	12	$4\frac{7}{9}$	$1\frac{1}{2}$
J. H. Busteed ...	29	8	1	11	$3\frac{2}{7}$	4

In Bowling:—

W. Mitchell	has taken	46	wickets.
H. B. Bolus	,,	40	,,
C. D. Rygate	,,	33	,,
E. J. D. Mitchell	,,	22	,,
A. D. Fripp	,,	8	,,
W. J. Scott	,,	6	,,

F. Soper, G. W. A. Mitchell, T. S. Jackson, W. A. Haslam, E. Budge, and H. B. Rygate have often assisted when the club has been deprived of the service of its more regular men; and have given ground for hope that next season some of them may become worthy successors to the vacant places in the cup team.

FOOTBALL.

The following is the complete list of Rugby Matches for the Season, which begins with our opening game at Blackheath, on Wednesday or Thursday, October 5 or 6. The fixtures for both teams are considerably stronger than in former years; but if only men, especially freshmen, will recognise that their first duty in football is to play for the Hospital whenever their name is posted in the colonnade—and if they will, one and all, make up their minds to try and win a place in the Cup team—we have no doubt that the club will be able to show a very good record at the close of the season. There is among the old men the nucleus of a really good team, but there are several vacancies, and we *must* have keen and healthy competition.

FIRST FIFTEEN.

DATE.	AGAINST WHOM.	WHERE PLAYED.
Oct. 8 '87	Old Merchant Taylors'	Willesden Green.
,, 15	Kent Rovers	Blackheath.
,, 22	Croydon	Croydon.
,, 29	Clapham Rovers	Wandsworth.
Nov. 5	Middlesex Wanderers	Richmond.
,, 12	Saracens	Walthamstow.
,, 17	R. M. A., Woolwich	Woolwich.
,, 19	Bradford	Bradford.
,, 21	Wakefield Trinity	Wakefield.
,, 26	Dulwich College	Dulwich.
Dec. 3	R. M. C., Sandhurst	Sandhurst.
,, 10	Queen's	Balham.
,, 17	Rosslyn Park	Acton.
Jan. 7 '88	London Scottish	Lee.
,, 12	Cambridge Wanderers	Blackheath.
,, 14		
,, 18	East Sheen	East Sheen.
,, 21	Saracens	Blackheath.
,, 25	Cambridge University	Cambridge.
,, 28	Sydenham	Sydenham.
Feb. 4	Kensington	Wood Lane.
,, 11	Oxford University	Oxford.
,, 18	H.M.S. Marlboro'	Blackheath.
,, 25	Suffolk County	Ipswich.
Mar. 3	Blackheath	Blackheath.
,, 10	Richmond	Richmond.
,, 17	Middlesex Wanderers	Richmond.
,, 24	London International College	Isleworth.

SECOND FIFTEEN.

Oct. 8 '87	St. Thomas's Hospital II.	Lambeth.
,, 15	Rosslyn Park II.	Acton.
,, 22	London Hospital II.	Blackheath.
,, 29	Richmond III.	Richmond.
Nov. 5	Middlesex Wanderers II.	Blackheath.
,, 12	University College Hsptl. II.	Blackheath.
,, 19	Queen's II.	Balham.
,, 26	Sydenham II.	Blackheath.
Dec. 3	Saracens II.	Blackheath.
,, 10	St. George's Hospital II.	Castle Hill.
,, 17	Middlesex Wanderers II.	Blackheath.
Jan. 7 '88	Middlesex Hospital II.	Blackheath.
,, 14	London Hospital II.	Blackheath.
,, 21	Saracens II.	Walthamstow.
,, 28	Rosslyn Park II.	Blackheath.
Feb. 4	St. Bartholomew's Hosptl II.	Blackheath.
,, 11	Croydon II.	Blackheath.
,, 18	St. Thomas's Hospital II.	Blackheath.
,, 25	H.M.S. Marlborough II.	Portsmouth.
Mar. 3	Kensington II.	Blackheath.
,, 10	Upper Clapton	Upper Clapton.
,, 17	Sydenham II.	Blackheath.

NOTICE.

On page 202, in our last issue, "lips" is misprinted on lines 10 and 11 for "legs."

Several contributions are held over this time for want of space.

Guy's Hospital Gazette,

OCTOBER 15, 1887.

CLINICAL LECTURE.

By Mr. BRYANT.

Mr. Bryant, delivering the first clinical lecture of the session, dwelt on some of the dangers of strangulated hernia. He pointed out how pressure may cause ulceration of the mucous membrane of the bowel, producing serious results. Indeed, there is always more or less ulceration at the line of stricture, particularly in femoral hernia. Having this fact in mind, the surgeon should be careful to keep the bowels closed sufficiently long to allow the bowel to recover its peristaltic action. Opium should be given to prevent irregular contractions. Purgatives should not be given, as the intestine above the seat of strangulation is distended and full of liquid fæces which are ready to act as a sluice and flush the bowel below when the peristaltic action recovers. Referring to some unlooked-for occurrences in cases of strangulated hernia which for a time appear to be doing well, Mr. Bryant related an interesting case which is now in the hospital.

Richard M., 37, mechanic, was admitted into No. 20 Job, on June 23rd. He had a congenital hernia and wore a truss. Fifteen weeks ago it became strangulated, and eight hours after was operated on by an old house surgeon of Guy's. The wound healed rapidly, and twelve days after the patient was up and about. There is, unfortunately, no report of when his bowels first acted after the operation. The patient soon became aware of trouble for which he was sent to the hospital. On admission, a swelling, which varied in its position from time to time, appeared in the abdomen. It was most commonly on the left side over the sigmoid flexure, and was at other times over cœcum at right side or in front of abdomen. It was tender to the touch. There was not constant pain. Sickness present, but often absent for a few days at a time. It usually came on about eight hours after food. The bowels were acting well, but sometimes were not moved until he was sick. The swelling in abdomen always preceded an attack of sickness, increasing in size, and being less evident afterwards. An attendant symptom always being colicky pain.

Examination.—Abdomen full, rather drummy; no coils visible, no peristalsis seen. Flatus was passed freely after attack during the intervals between fæcal vomiting.

On July 14th Dr. Pye-Smith and Mr. Bryant in consultation thought obstruction was situated in lower part of small intestine. On July 24th Dr. Pye-Smith prescribed mercury, which patient took for three weeks, feeling better and looking so.

July 31st.—Bowel still distended. Patient said he could feel there was a spot at which the onward flow of the intestinal contents was delayed, causing it to seem to flow backwards. He could feel some of it, as it were, squirted onwards. The point was situated on left side about one inch above mark of operation.

August 16th.—Mr. Bryant decided to explore, calling attention to the long persistence of fæcal vomiting unattended by severe constitutional symptoms. An incision five inches long was made close to the old scar. The extra-peritoneal tissue seemed much thickened. A coil of intestine became greatly distended just opposite wound, as one had often seen when he complained of the colicky pains in stomach. The small intestine was found very much distended, the wall being hypertrophied, so as to feel like stomach. The surface was injected, but there were no adhesions. Slowly the small intestine was examined, one piece after another being passed under view and quickly reduced. The upper part of jejunum was reached, the bowel here being hypertrophied and dilated,

but otherwise normal. It was evidently the wrong direction, so back again the search was made in the other direction. A coil was soon found like the first part, and traced on. The injection increased step by step, and soon lymph was seen on the bowel wall. A coil was brought into view which had evidently been in hernial sac, for grooves made by constricting neck of sac were still plainly visible. This was intensely injected and covered with recent plastic lymph. It was situated in the pelvis. The bowel leading up to it was dilated, while that beyond was collapsed and much contracted. This was probably the seat of obstruction, for at grooves referred to before there were broad inflammatory thickenings, which by their construction produced considerable stricture of the calibre of bowel.

Mr. Bryant tried the effect of freeing the coil from its position in the pelvis, and then if necessary to make an artificial anus. The coil was therefore replaced immediately beneath the wound and the latter closed. Opium was given. Shortly after 20 ounces of vomit, as before, was ejected. Pulse became weak during night, so brandy was given. He improved during the next few days. The stitches were removed on the third day. On August 29th, first motion passed since the operation. He rejected all solids, vomiting bilious and fæcal matter after. He was last sick on August 31st. Since then he has only taken liquids. Beef tea, milk, per orem and by enemata. Since September 9th, the enemata have been discontinued. He continues to improve and is entirely free from pain or tenderness in the abdomen. So far as can be judged of his progress and present condition seven weeks after the operation, the case is eminently satisfactory.

GUY'S HOSPITAL STUDENTS' BIBLE CLASS.

The meetings of this class are held every Wednesday, from 12.30 to 1.15 p.m., in the Board Room over the Counting House. All Guy's men are invited.

SOME RECENT CONTRIBUTIONS TO THE THEORY OF EVOLUTION.

By F. E. BEDDARD, M.A., F.R.S.E.

(In acceding to the flattering request of the Editor that my paper read on Oct. 3rd should be published in the "Gazette," I think it advisable to state that a good deal of matter not bearing directly upon the argument has been cut out: this will account for some abruptness in style, but is not urged as an excuse for any defects in the development of the argument.—F.E.B.)

It is not the object of the present essay to give a history of the different views which were held before the time of Darwin as to the evolution of living beings. It will be necessary, however, to give some account (which will be made as brief as possible) of Darwin's conception of the causes of evolution, in order to render what follows more intelligible.

The belief that species were not immutable had been gaining ground since the publication of the writings of Lamarck and Geoffrey St. Hillaire; but, although both these naturalists believed that existing forms of animal and vegetable life had been derived by "descent with modification" from pre-existing types, neither of them had given an adequate explanation of this "transmutation." Darwin starts with the principle of heredity, by virtue of which the characteristics of parents are transmitted to their offspring; but at the same time he recognised another property of living beings in their tendency to variation; the offspring of an animal or a plant present numerous minute differences from each other and from their parents. Breeders of varieties of pigeons, sheep, flowers, and so forth, make use of these two properties, and Darwin set himself to find out whether there was not some process in Nature comparable to the artificial selection of a breeder who selects his varieties, and by crossing them produces in time the required peculiarities of structure. This process is carried on in nature by what Darwin termed "Natural Selection," and Spencer "Survival of the Fittest" in the struggle for existence. The number of offspring produced by animals and plants is enormously in excess of the food available; hence there is necessarily a struggle for existence, in which many perish and a few survive. Since, however, the offspring of a given species are not *exactly* like each other, those varieties which are better

able, owing to their peculiarities of gaining an adequate food supply, will have the better chance of surviving, and will transmit these peculiarities to their descendants. Furthermore, the area inhabited by any given species is continually undergoing climatic and other changes, and obviously there will be a need of adaptation to these changed conditions. Here again, therefore, there must be a struggle for existence, and those varieties which have some advantage over the rest will survive. The additions that Darwin really made to the current theories respecting evolution will be, I hope, apparent from the outline of his position that has just been given. Basing his arguments upon already known facts, to which he, of course, added largely, and starting from the position attained to by Lamarck, he showed how evolution had taken place. In the twenty-nine years that have elapsed since the first publication of the theory of Natural Selection, the progress of Biological research has been immense: kindled into new life by the influence of these views; but in spite of the enormous accessions to our biological knowledge, the main idea of Darwin not only remains unshaken, but is established on a firmer basis of ascertained fact. The progress of discovery has, however, rendered necessary a reconsideration of some of the facts and arguments upon which the theory of Natural Selection rests.

Reference was made at the outset to two fundamental properties of living beings:—firstly, that an animal or plant inherits the characters of its parents; this is termed Heredity:—secondly, that no two organisms of the same species are exactly alike; this is known as Variation. The nature of Variation was chiefly discussed by Darwin in his "Variation of Animals and Plants under Domestication;" in this work he pointed out "that variations of all kinds and degrees are directly or indirectly caused by the conditions of life to which each being, and, more especially, its ancestors have been exposed." Among the important causes which produce variation, use and disuse, leading to increase or decrease of the organ, are particularly mentioned; in this view, therefore, Darwin was in accord with Lamarck. More recently Professor Semper* has investigated the influence of surrounding conditions, such as temperature and sunlight, in producing variations directly, and has brought together an immense series of facts, gathered from his own researches and from those of others, tending to show the great importance of these influences.

Variations of that kind seem to require no theory of Natural Selection to account for their occurrence and persistence; it is within the experience of everybody that excessive use or disuse of a muscle, for example, leads to an increase or a decrease of size in that muscle. It seems a most satisfactory as well as a most obvious explanation of the powerful breast muscles of predacious and other birds, to assume that the use of these muscles led to an increased vascular supply and so to a growth of the muscle, and that this was intensified in successive generations, so that ultimately the powerful pectoral muscles of these birds came into existence. On the other hand, disuse of an organ would ultimately lead to the reduction of this organ to a minute rudiment, or, perhaps, to its final disappearance; as a familiar instance of this process may be mentioned the degeneration or disappearance of eyes in animals inhabiting regions and localities to which the rays of the sun have not access. It is a well known fact that there are caves in many parts of the world, with their own peculiar inhabitants, which are characterised by the entire or partial suppression of the eyes. These animals do not belong to any one particular group; there are Insects, Crustaceans, Amphibians, which possess at most functionless rudiments of eyes. Moreover, the explorations of the "Challenger," and other deep-sea dredging expeditions, have abundantly proved that a large percentage of the deep-sea fauna consists of animals that have partially or entirely lost their eyes; and it is certain that the abysses of the ocean are profoundly dark.

What more simple explanation can be given of this phenomenon than to attribute the degeneration of the eyes to disuse. The cumulative effect of disuse would be ultimately the disappearance of the eye.

In the first place, it must be observed that both these attempted explanations depend upon the phemomena of heredity; it is not enough to assume that the typical characters, mental and physical, of a given animal, reappear in its offspring; it must also be assumed that peculiarities, whether physical or structural, that have been acquired by the individual during its life should also be transmitted to its posterity. Each animal is acted upon by surrounding conditions, and develops this or that anatomical or mental feature; its descendants start from the level of organisation of their parent at the time of procreation;—hence the possibility of cumulative effects, due to use or disuse, or various external circumstances.

In the second place, it should be observed that the gradual increase in structural complexity, due to use in successive generations, is far easier to understand than the reverse process, *i.e.*, degeneration and disappearance

* "Animal Life." International Scientific Series.

due to disuse. To return for a moment to the instance of this process just given, that the eyes of many animals which live in the dark are absent; the non-use of the eye would quite intelligibly lead to its degeneration, to the gradual reduction of the visual cells, to the atrophy of the optic nerve, and so on; but when the eye has been so reduced as to be entirely functionless, the process of reduction, on the hypothesis of the effects of disuse, cannot go on any further, for the obvious reason that a functionless rudiment can perform no functions.

Darwin explains cases of this kind as well as the phenomena of heredity in general, by the now celebrated theory of "Pangenesis." According to this theory every cell of an animal or plant is continually giving off minute organised fragments of itself, or *gemmules*. These gemmules find their way to the reproductive glands and largely build up the substance of the ova and spermatozoa. Now these gemmules retain of course the capacity of re-producing the cell from which they were given off; hence the ovum and spermatozoa, after fusing together in the process of fertilization, build up an organism which reproduces the characters of both parents; it is also assumed that the gemmules given off from imperfect and functionless organs, are themselves feeble and hardly capable of building up anew the cells from which they were derived; in this way the disappearance of functionless organs is explained, and it must be admitted that that portion of the pangenesis theory would be the most reasonable of the whole, were not the entire conception upon which it rests most unsatisfactory; the whole theory of pangenesis savours more of mediæval philosophy, than of the profoundest and most original philosopher of this century. It will not escape the attention of readers, that the theory of pangenesis has much in common with the celebrated "Emboitement" theory referred to on the first page; and it has, of course, no more foundation in observed fact. There is too much that is incredible in it, and it is really no explanation of the phenomena with which it deals. So far the conception of the origin of species (presuming for the moment that the inferences upon which it rests are correct) seems to need no *selection* of any kind; it is pure Lamarckism. The evolution of an animal would either depend upon its activity or inactivity in any particular direction, and upon the inheritance of the peculiarities acquired or lost, or upon the action of external conditions and the inheritance of other peculiarities. The activity of the animal would therefore be the equivalent of Natural Selection. There is, however, another kind of variation, which is not so apparently explicable on the principles enunciated above as the instances already cited. That is the kind of variation which may be termed *intrinsic;* those numerous minute variations in different directions which have no obvious connection with use or disuse or with the influence of the changes in surrounding conditions. Careful measurements of external organs, of minute differences in colour, etc., in various animals, have established beyond doubt the truth of what has just been said, viz., that these variations do constantly occur. Such variations have no significance for believers in the views of Lamarck, but they have every significance for those who adopt the theory of Natural Selection; among the numerous variations which occur in the progeny of an animal, one will occasionally occur by virtue of which its possessor will have an advantage over its fellows; this will be seized upon by natural selection and the variation perpetuated. The Chapter of Accidents is in fact quite sufficient to account for the Origin of the Fittest; the requisite variation must necessarily occur occasionally; although it is true that "an almost infinite chance exists against any usual amount of variation, as observed, producing a structure which is fit to survive," it is equally true that the immense amount of "attempt, failure, and consequent destruction" which we see, satisfies this extremely small chance.

An extremely minute variation will, in many conceivable cases, be sufficient to ensure a certain advantage; and it is highly important to show that this is really so, because variations are usually small and insignificant. For example, at the commencement of the glacial period, a very slight variation in the amount of the hairy covering of an individual mammal would mean survival or destruction; as the cold *gradually* increased, so might the thickness of the fur. The camel's back must ultimately be broken by the addition of a single straw; a fraction of a degree of lower temperature in a mammal, due to increased convection or radiation of heat, would imply either death or more vigorous and active habits; this would imply a larger food supply; this might be impossible owing to competition with other individuals of the same or an allied species; and so forth. This instance might be followed much further, and many better instances might be adduced to prove the general truth of what has been said.

There is no reason, however, against the supposition that variations may be occasionally large; and it has been assumed that such variation has actually occurred, as it would account for many gaps in otherwise closely related series. The term, "Saltatory Evolution," has been applied to the alteration of specific characters by sudden and great variations.

But now, while it is an undoubted fact that variations of the two kinds just referred to do occur, it is by no means so certain that they are equally important for the origin of species.

It all turns upon the question of the transmissibility of acquired characters. At first sight it would appear absurd to question this aspect of heredity at all. From the instances already given of the effects of use and disuse, it would seem that if any process, which cannot be actually followed with the eyes, could be regarded as true, it would be the inheritance of acquired characters. In making an inference from facts one is, however, often apt to run into the fallacy of "*Post hoc, ergo propter hoc;*" the coincidence of disuse and degeneration of an organ in the history of species is not necessarily a proof that they are cause and effect.

The whole question has been recently put in a new light by Professor Weismann, whose explanations of the phenomena of variation and heredity are the most satisfactory that have yet appeared; they have further the additional merit of being based upon verifiable facts, and of confirming from a new point of view the truth of the theory of Natural Selection. Naturally, therefore, they dispose of the remnants of the Lamarckian philosophy, which has existed up to the present day, in the explanation of the origin of varieties by the hereditary transmission of acquired peculiarities.

Besides the cases already cited, which do, at first sight, seem to be explicable on this latter hypothesis, there are in the animal world numerous instances where an organ is reduced on account of, or simultaneously with, disuse, although that same organ cannot be altered during the life of the individual.

Most insects are characterised by the possession of wings in the perfect or "imago" condition. It is well known that a "perfect" insect (using the word in its technical sense) does not grow; it remains throughout life in exactly the same condition that it was in when it emerged from the pupa. The hard outer skin is never shed to permit of further growth, as in the caterpillar stage. It is clear, therefore, that the wings of an insect must remain exactly the same whether they are used or are not used. And yet we are acquainted with many insects, notably the beetles of Madeira, where the wings have gradually disappeared, coincidently with their disuse; and in all beetles the anterior pair of wings have ceased to be functional wings, serving merely as wing cases. Beetles do not habitually use their wings so much as do butterflies and moths, where both pairs are present.

Another and a more striking instance belonging to the same category, is afforded by the sexless individuals of social insects. The so-called workers among ants are distinguished among other characters by the total absence of wings. That their ancestors possessed them is plainly proved by the fact that they themselves show considerable traces of wings during their larval development. This loss of wings cannot be due to the accumulated effects of disuse, not only for the reason given above in the case of other insects, but also for the efficient reason that these workers are sexless and, therefore, can have no descendants!

Another equally strong argument against the supposition that acquired characters are hereditary may be drawn from our own species. The capacity of speech is one of the most marked characteristics of man, and has been for many thousands of years. And yet, as was proved by the experiment of the Persian king, children, when brought up away from all converse with adults, do not speak any language.

(To be concluded).

Hospital News.

INTERESTING CASES IN MEDICAL WARDS.

9 Philip—? Trichinosis.
10 ,, Peripheral Neuritis. Alcohol and Lead.
31 ,, Strong Room—Syphilis, Fits, Mania.
31 ,, Malignant Disease of Palate.
13 Stephen—Abdominal Tumour.
28 ,, Paroxysmal Hœmoglobinuria.
50 Mary—Thoracic Aneurysm in Female.

THE CARRINGTON MEMORIAL.

At a meeting of the subscribers to the Carrington Memorial Fund, held in the Anatomical Theatre on October 10th, Dr. Shaw in the chair, it was unanimously decided that the money collected should go towards the erection of a tombstone in Norwood Cemetery. A Committee, composed of Messrs. Roper, Halstead, Drew and R. M. Randell, were appointed to choose the design, subject to the approval of Dr. Carrington's family, and to make the necessary arrangements.

PHYSICAL SOCIETY.

The first meeting of the Physical Society was held on the 3rd inst., Dr. Wilks presided; the treasurer and many of the staff attended. The new club was thrown open for the occasion. After a speech from the president Mr. Beddard was called upon for his paper on "Recent Contributions to the Theory of Evolution," which is commenced in this number. There were a considerable number of visitors present, and the proceedings were most successful throughout. The meeting closed, after the usual votes of thanks, at about 10 p.m.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Sir,—Your correspondent "X" has done good service in drawing attention to the possibilities of a fire at Guy's, and I think one may say without exaggeration that the present arrangements for coping with an outbreak of fire are extremely unsatisfactory. The members of the resident staff have, at various times, done their best to persuade the authorities to make some improvement in this direction, but, as far as can be seen, without any effect, save that after an outbreak in Job ward about two years ago, which was got under by the prompt action of two or three patients, the nurse and a wandering resident, the board in the porter's lodge was either repainted or replaced. This board sets forth that in case of an outbreak of fire at night, the porter is to be communicated with, and he is to fetch the plumber, who is to bring the key of the hydrants and to get the nearest hose to work. Now, this roundabout way of acting promptly would take such considerable time, even barring accidents, that it is highly probable an engine from Tooley Street would be in action before the home appliance could be put in motion; and as the surgical buildings, as pointed out by your correspondent, would burn like tinder, it is evident that any action to be effectual must be *immediate*. Might I suggest, therefore, through your columns, that each of the hydrants should be overhauled *at least* once a quarter and kept in such condition that neither key nor plumber would be required to unscrew them. And might I ask whether the hoses are really in a useful condition or, as suggested by "X," more or less inefficient? And why it is there is no fire brigade on the premises, either among the servants of the Hospital or the residents? Surely the latter might receive *some* instruction on this point when coming into office. It is not so very long since an enquiring "H. S." discovered that there was no water supply at all to the fire-plugs, the tanks being empty.

The red dots in the plan of the Hospital look very pretty, but I fear they are but snares and delusions, and should we unfortunately be visited by a calamity and many lives lost, it is to be feared the authorities would not stand blameless before a coroner's jury.—I am, Sir, yours, etc.,

E. C. K.

To the Editor of Guy's Hospital Gazette.

Sir,—I should like to make a suggestion to the Committee of the new Club through your columns, namely, that they should get permission from those who are responsible for the cups (now in the Library), to remove them to the Dining Room of the New Club, where they can be seen and admired by all new comers to the Hospital, and any explanations about them be given without disturbing anybody's studies, and without being greeted with subdued sibilants.—I remain, yours sincerely,

POCULUM.

A "SWARM OF LIFE"

By the Maze Pond Poet *(not Long-a-fellow.)*

Tell me not the awful numbers
Of Bacilli are a dream:
That the germ is dead that slumbers
In a one-in-forty stream!

Thou, with Methyl Blue, discernest
Them as parts of every hole.
Dust they are—and yet in earnest,
World's depend upon their *rôle*.

Funnels full of Irrigation,
Of Pactolian Iodine,
Chase this microscopic nation
Up the long lymphatic line!

Lymphangitis, Phagedæna
Bubo, Phlegmon, Charbon, Plague
Dance the Death in the Arena
Of our cells, unstained and vague.

Be you ne'er so oil-and-gauzey,
Soaked, and soft with Salic Wool,
Yet they come, and set up nausee—
Actum est, then, de John Bull!

Trust no "Anti's" howe'er pleasant,
Lest they make you also dead,
Act—the only way at present—
Washing out where'er they spread.

Cultivations may remind us
All corrosive's not sublime,
Even washed, we leave behind us
Fomites time after time.

Fomites, perhaps, another
Studying Hygiene in a main,
Taking home unto his mother,
She shall have the Mumps again!

Passim.

The proceedings on the opening night of the session may be described as having been, on the whole, a great success. The photographic exhibition demands a few words of special mention, as it attracted considerable notice from the visitors. Quite a large number of exhibits were on view, and the greater proportion of them were illustrative of medical, scientific or hospital subjects. Those which were only of general interest made up for this by their special excellence of workmanship. Mr. Heatherley's series of photographs showing different types of idiocy (from patients at the Darenth Asylum) were found to be a great source of attraction. Mr. Du-Buisson showed a number of interesting clinical photographs, and some delightful views of the Hospital and park. Messrs. Evershed, Brett, Bampfylde, Kelbe, Lumley and Wacher were also exhibitors, but space does not allow us to go into further detail as to subjects. The work was, however, as most of our readers can testify, generally excellent.

It has been suggested to us that it would be a good idea to start a regular Photographic Club in connection with the Hospital, and we believe that the scheme has been casually considered more than once. As regards general photography, we think this is scarcely called for, but surely it would be worth while to start a Photographic Committee, which might form a part of the organization of the Physical Society analogous to the Pathological Committee which exists at present. It would be the business of this Committee to obtain photographs of all suitable cases admitted to the Hospital. Possibly, if it were undertaken that a specimen would always be presented to be bound up in the Reports, the Registrars would be willing to see that the arrival of suitable cases was made known to a member of the Committee. Then at the end of each session the new photographs would be shown by the Society.

But to return to Monday evening. Dr. Wilks made a long and eloquent speech, which, we regret to say, was not reported at length, though it was full of interest. He heartily welcomed the new comers, who were present in considerable numbers, and congratulated them upon having chosen a great and noble profession. While on the subject of Medical Education he quoted a remark of Sir Wm. Gull's, in connection with the L. S. A., to the effect that "the entrance to the Medical Profession is through the Hunterian Museum and not through the Apothecaries' Hall." He explained the real meaning of this aphorism and supported it by his own authority. He pointed out the great value of a sound scientific education, the want of which could not be compensated for by any knowledge of drugs and dispensing. We are to be physicians and not mere druggists. He contrasted the condition of things at the present day with that which existed when he was a student himself; when it was, for example, customary to hold autopsies only upon the bodies of those who were considered to have died from a more than usually obscure disorder.

Of Mr. Beddard's paper we shall say very little. Through the kindness of the author it is here to speak for itself, and the first instalment will be found in another column. For ourselves, we have only one fault to find with it, and that is that it could not have been still longer. The subject was, as Dr. Wilks remarked, perhaps the most widely interesting that could have been chosen, and its treatment was worthy of its importance. But this is superfluous praise, as was testified by the hearty round of applause which greeted the lecturer, from an audience of all ages and of every standing, from the first year's men, newly enrolled, to the senior members of the medical and surgical staff.

We are glad to hear that the entry this year is a good one. Up to the present time the number is only slightly less than that of last year (about 100), and new men are continuing to enter daily. We hope that first year's men will show their patriotism by subscribing to the new Club, the Physical Society, the various Athletic Clubs, and (may we add) to the Guy's Gazette also. It is open to them to become yearly or half-yearly subscribers from June last, and we feel sure that many of them will do their duty in this respect. At all events we will say that we rely largely upon their support to ensure the continued success of our undertaking.

In our last issue we referred to the published edition of Dr. Wilks' Lectures on Medicine. We notice that it is there stated that they appeared in the Gazette in the years 1883-4. The mistake escaped our notice until after publication. There was no Gazette in existence at the time mentioned in "Passim," as our readers are no doubt aware. We are glad to hear that, since we called attention to the fact that they were obtainable, several copies of these lectures have already been sold.

Green Extracts.

LIFE OF CHARLES DARWIN.

By G. T. Bettany.
(Walter Scott, London).

A short notice on one of Mr. Walter Scott's volumes, which has recently appeared in his "Great Writer" series, by an old student and lecturer at Guy's, can hardly be considered out of place by the least scientifically inclined of Guy's men; and will, we hope, be welcomed by many. Mr. Bettany commences by tracing the hereditary influences which operated on the mind of the greatest of English scientists. A method which Darwin himself, had he been a biographer, would undoubtedly have commenced with.

The spirit of enquiry appears to have been in the family for at least four generations, a Mr. Robert Darwin being described as "a person of curiosity" and an antiquary. Perhaps the most famous of Darwin's ancestors was Erasmus Darwin, who, in his "Temple of Nature," anticipated to some extent his illustrious grandson's theories. He, while far from being what is termed an atheist, held the following advanced views—"That there exists an Ens Entium, which formed these wonderful creatures, is a mathematical demonstration. That he influences things by a particular providence is not so evident. The probability, according to my notion, is against it, since general laws seem sufficient for that end."

On one occasion Charles Darwin in some letters, which are inserted, expressed himself in a very similar manner.

The next 15 pages are concerned with the illustrious great man's education at Edinburgh and Cambridge, containing some reminiscences by those who knew him there.

Next follows an account of his first voyage in H.M.S. "Beagle" with Captain Fitzroy, with some interesting anecdotes, and the first germs of his afterwards elaborated theory on the "Origin of Species." It is an interesting fact that his first idea of natural selection through the survival of the fittest was derived from reading Malthus's dreary "Essay on Population." In reference to this point, Mr. Bettany quotes at length, on page 72, from Darwin's Journal, part of which we should like to insert, but space forbids. Chapter IV. ends with an account of Darwin's paper, read before the Linnæan Society, on the "Origin of Species," and that of Mr. Wallace, on the "Tendency of Varieties to Depart from the Original Type," both being read at the same time. Chapter V. treats of the publication of the "Origin of Species," and is rendered doubly interesting by the insertion, towards the end, of extracts from the reviews of the leading journals. These appear somewhat ludicrous now that evolution is so much a part of our education, and that we are in the habit of utilizing its doctrines in the explanation of almost all facts in Biological Science. Broadly speaking, we now study Biology on the lines of Darwinism. Chapter VII. deals in the same way with his second work, "The Descent of Man" finishing with criticisms, among which *Punch's* amusing critique, beginning—

"They slept in a wood,
Or wherever they could,
For they didn't know how to make beds;
They hadn't got huts,
They dined upon nuts,
Which they cracked upon each other's heads," etc.,

is given, in part.

The remaining chapters are occupied with his later publications and reminiscences of his life at Down.

Altogether, we strongly recommend everyone to get the book. It is nicely and tastefully got up, printed on good paper, in large type, and published at the most moderate sum of one shilling.

PHILOSOPHIA MEDICI.

REFLECTIONS AND NOTES

By Walter Moxon.

1857 to 1869.

V.

Common sense people are quite right in suspecting the worth of a man who does nothing—who shows no liking for action. They prefer a man who can do one thing, and do it thoroughly well; they then see his bent, and can know and judge him.

How loudly we cry for liberty of thought. Now, liberty is a thing that no one has yet understood, and the more you think calmly about it, the more you are inclined to guard and limit the glow the word carries; and certainly, if liberty of deed is a thing to be feared, liberty of thought is more to be feared, for deeds meet deeds to check them, and keep them in a path of reasonable safety. But thoughts can live in vacuo, and may become ever so licentious and wild. And, alas! it is true, that the thought so wild may stand father to a deed which inherits the madness of its parent, while it enters an existence in the hard world of things—like the children of Jupiter, who commit their father's crimes without their father's security from consequences.

True, as you say. The members are partial, and a great society must limit its members to the place and office they receive; just as in the body every member does its work in its place, without troubling its fellow members by envyings and aimings after other places and duties. But how short-sighted has been our view of the relations of the body's members to each other. Read Darwin's beautiful hypothesis, and you grasp a possibility that opens up a new field to your view, if you hold to and use it rightly; for he shows you how every part and member—even the lowest and minutest—is in a perpetual receptive reciprocity with the highest and the largest. And so, if society is ever to organize itself on its soundest basis—rise, as one man, to its full perfection—a like universal reciprocity of communication must be reached. Nothing must be left alone to be low.

We all fight with scepticism and indifference as with death and darkness.

NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

(Continued.)

SYPHILIS OF LUNG.

1. *Congenital.*

Depaul described a yellowish-grey nodule in the lung of children dead of congenital syphilis, and Virchow described what was called "pneumonia alba." The lung is yellowish-grey, solid, firm; but retains the impress of the fingers. The difficulty in making sure that there is a true syphilitic phthisis arises from the fact that the histological structure of tubercle and gumma is identical, and that gummata caseate in exactly the same way as tubercle. Of course, ordinary tubercular phthisis may occur in a syphilitic individual.

The evidence is as follows:—

1. Nodules surrounded by a fibroid zone, yellow, opaque and caseous, are associated with gummata of liver, testis, and other parts.

2. Disease of the apex of the lung consisting of caseous nodules indistinguishable from yellow tubercle, but surrounded by very great excess of fibrous tissue, is found associated with gummata of other organs.

3. Syphilitic individuals sometimes contract chronic disease of the lungs, commencing at the apex, and which ultimately is indistinguishable from phthisis, but rapidly gets well under anti-syphilitic remedies (Dr. Moxon). Goodhart and Greenfield describe the fibroid material of what they believe to be syphilitic phthisis as distinguished by its greater vascularity.

Broncho-Pneumonia

Is secondary to bronchitis, and occurs at the extremes of life, in children and old people.

Naked eye appearances as we see them in a child's lung:—

(*a*) The lobules, or groups of them, are distended with inflammatory products, so that on the surface they project and render the section uneven.

(*b*) The bronchioles and bronchial tubes are full of pus and mucus.

(*c*) Scattered between the pneumonic lobules are collapsed portions. These are of a slate blue colour, pyramidal in shape, airless, so that they sink in water, and are incapable of inflation. These lobules are depressed below the surrounding lobules, and make the irregularity of the surface on section more marked.

(*d*) The lung tissue surrounding the collapsed or pneumonic parts is in a state of hyper-distension. It is not emphysematous, because the alveolar septa are in no case broken down.

Microscopically,

Broncho-pneumonia is distinguished by the far greater amount of cellular epithelial products in the affected alveoli. These cells are derived from—

1. Proliferation of epithelium of the bronchial tubes being sucked into alveoli.

2. The proliferated epithelium of the alveolar walls. There may be a small amount of fibrin exuded, and perhaps a few red cells; these are in extremely small proportion, and only found immediately around the bronchioles.

3. Large numbers of leucocytes derived from emigrated white blood cells. The bronchioles have their walls thickened in consequence of infiltration of leucocytes.

Acute Bronchitis.

Naked eye appearances.

1. Injection of mucus membranes.

2. Tubes filled with muco-pus.

3 (often). Hyper-distension of alveoli. Owing to the accumulated secretion, and perhaps because the large tubes have their walls softened, these tubes are unable to collapse and allow the air to escape. There is no destruction of alveoli, &c.; no true emphysema.

Microscopically.

1. There is great vascularity.

2. The columnar ciliated epithelium is discharged, and its place is taken by ill-formed epithelial cells and leucocytes.

3. Swelling of basement membrane.

4. Infiltration of leucocytes into different layers of the tubes and even outside them.

Chronic Bronchitis.

Naked eye appearances.

These are by no means marked. The vascularity has disappeared, and the mucous membrane is of a slate colour, often mottled with dark patches. Bronchiectasis and emphysema are invariably present to a greater or less degree.

Microscopically.

The changes are identical with what has been described under acute bronchitis, but in addition the walls of the tubes show atrophic changes.

Many of the muscular fibres are atrophied.

The cartilages also undergo atrophy.

Emphysema.

Two kinds. 1. Interstitial.
2. Vesicular.

Interstitial emphysema is characterised by the fact that the air is extravasted into the connective tissue of the lung, so that the lobules are surrounded by bead-like rows of air bubbles.

Sometimes in extreme cases the air passes inwards to the root and reaches the connective tissue of the mediastinum or even the neck.

This form only occurs in a case in which the connective tissue is abundant, *i.e.*, in children, and it is most commonly found in pertussis.

Vesicular Emphysema.

Sir William Jenner described two forms:—Large-lunged or hyper-trophied emphysema; small-lunged or atrophied emphysema.

Atrophied or Atroptous Emphysema is synonymous with senile atrophy of the lungs, which will be treated of afterwards.

The other is the ordinary emphysema of adults.

Naked eye appearances.

1. Lungs are excessively bulky and retain their size when removed from the body, *i.e.*, they will not collapse.

2. They pit on pressure and do not crepitate. They are described as feeling like a down pillow. The absence of collapse and the pitting on pressure is due to loss of elastic tissue.

3. The parts which are affected first are the apices and anterior border, but the process in extreme cases extends throughout.

Microscopically.

(*a*) The first change is hyper-distension of the infundibula and subsequently of the alveoli. Partly by atrophy of the alveolar walls, partly by distension, the air cells disappear and the whole infundibulum is converted into a pyriform sac. The hyper-distension continues, and contiguous sacs break into one another so as to form greatly enlarged cavities and bullœ, which are seen when the disease is extreme. The bullœ often project from the surface beneath the pleura.

N.B.—On account of the hyper-distention of these enlarged air sacs, emphysematous lung when incised collapses completely. In consequence of the distension of the alveolar walls it follows that there is a corresponding destruction of the capillaries, and this is to a large extent the cause of the cyanosis and dropsy of chronic bronchitis.

Theories of Emphysema.

1. *Theory of Laennec.*—He supposed that some of the tubes, as the result of bronchitis, became blocked with secretion. That in consequence of this the air could not be driven out of the lungs, but that it could be drawn into the cells by forced inspiratory efforts. That in coughing, the air retained in some cells by the plug of secretion being subjected to pressure, ruptured the air cells.

2. *Gairdner of Glasgow.*—He showed that the effect of the accumulation of mucus in the tubes would be collapse, not hyper-distension. The tube being conical and gradually diminishing in size, inspiratory efforts would only have the effect of fitting the plug of secretion more tightly. Expiratory efforts would drive it into a wider part and allow it to escape. The final result would be that portions of lung would be emptied of air. That even if the air cells were distended, any amount of compressing force would not rupture. That the air cells might be regarded as spheres, and that any amount of pressure equal in all directions would not rupture such a sphere. He therefore supposes the sequence to be as follows :—

1. Bronchitis.
2. Collapse.
3. Hpyer-distension of other parts of the lung by forced inspiration, consequent atrophy of alveolar walls, and emphysema.

This hpyer-distension being due to the fact that the healthy part of the lung expands to make up for the part collapsed.

3. Sir William Jenner advocates expiratory theory, but on different grounds from Laennec. He points out that the pressure at all parts of the chest is not equal. That the apices are less supported than any part on account of the mobility of the sternum and costal cartilages; the adjacent part of the lung is supported lung.

A fissured sternum shows that in coughing these parts of the lung are projected forwards; so that is, parts of the lungs are rendered functionless by collapse or accumulated secretion; other parts will become hyper-distended to compensate for these; and during coughing those parts of the lungs least protected will become emphysematous These are the parts, apices and anterior borders, which are affected as a matter of common experience.

Besides the inspiratory or expiratory theories of emphysema, there is another which refers to a general degeneration of the alveolar wall throughout the lung. Fatty granules in such cases are found in the walls of the alveoli. But it is objected that this fact does not prove that the primary process is the fatty degeneration. This may be called the "nutritive theory," and it leads to what is the worst form of emphysema, viz., a general destruction throughout the lung.

To sum up, the probability is that all these causes of emphysema are true in particular cases.

(*a*) That the emphysema which is found surrounding tubercular nodules, or which is secondary to a chronic pleurisy is really inspiratory.

(*b*) That the emphysema associated with chronic bronchitis is produced, as Sir William Jenner explains it, by expiration.

(*c*) That nutritive changes are sometimes primary, and no doubt are often secondary. The air cells are in a state of hyper-distension; the nutrition of the lung suffers partly from this and partly from the condition of the body in general; and so the two last causes are in operation at the same time. With regard to the ultimate cause of emphysema, the following facts seem established :—

1. It is hereditary.

2. It may be produced by acute pneumonia weakening the pulmonary tissue; evidence of this is a case quoted by Hertza.

3. It may be produced by over-exertion. This is undoubtedly the case in draught horses, in whom the apices and anterior parts of the lung become emphysematous. In man there are undoubted cases in which severe physical exertion has caused emphysema.

4. The use of wind instruments, shouting and the like, are causes of emphysema. A military cornet player was attacked by double pneumonia; previous to that he had been playing his instrument as usual, but after his recovery he was unable to play. He died of some intercurrent disease shortly after, and both lungs were found to be emphysematous.

Atrophous Emphysema.

(Senile atrophy of lungs.)

This condition is commonly met with in old people with narrow, shrunken chests, stooping shoulders, and, in fact, the usual accompaniments of old age. The

lung tissue is atrophied throughout. The lungs collapse remarkably on opening the chest. The change is simple atrophy of the alveolar walls, leading to emphysema.

(To be continued.)

Sport.

Our football season opened on October 5th with a trial match at Blackheath. Thirty-five turned out and more or less enjoyed themselves for an hour; but an opening match is not an unmitigated pleasure, and not a few were glad when it was over. I am afraid I cannot as yet report any very conspicuous talent among the new men, but the case will, I think, be different when we come to our more important matches, for then we shall be able to command the service of three or four good men at present unfortunately attached to other clubs. So near and yet so far. These four men are at the front rank of footballers, and qualified to play for us in the cup ties. We have a splendid list of matches—as good as any club in London—and if only these men would all play for us regularly, it is not too much to say that we should have as good a team as any club in London. It is a thousand pities that they will not throw up outside clubs and unite to pull Old Guy's to the front. We know for certain that three out of these four have no particular interest in the clubs they play for—but they see no reason for change—we cannot make them sympathise with us, and probably they think they get better football by playing for clubs with a big name.

Well, certainly, our team at present is, as a whole, only very second-rate; but as we said last time, there are some really good men in it, at any rate two or three men who these big-named clubs have taken a lot of trouble in trying to get hold of. Thank goodness, they stick to Guy's; and if only these other men will think it over again and try to appreciate the fact that nothing is wanted but their co-operation to bring our team to the very foremost rank among football clubs, we are confident that they can, and will, see their way to join us, and that they will never regret having done so.

The following are the averages of the 2nd XI. for the past season. This is the first year of its existence—its second will be altogether a fuller form of life, and we hope it will meet with good support:—

Matches played, 9; lost 6, won 3.

Batting Averages.

	Played in Matches.	Highest Score.	Times not out.	Average.
E. Hunt	5	30 (not out)	1	18·6
J. Fawcett	4	24	—	11·7
W. K. Steele ...	7	37	—	11·0
H. Pearce	4	16	1	9.7
W. A. Haslam ...	8	16	2	7·6
R. W. Soper ...	5	19	—	5·6
H. W. Webber ...	9	10	—	5·1
G. W. Mitchell ...	3	10	—	4·3
S. Rivers	3	5	1	4·0
W. E. S. Cobb ...	6	9	—	3·4
H. Wilks	6	9	—	2·8

Bowling Averages.

	Bowled in Matches.	Overs.	Runs.	Maidens.	Wickets.	Average
R. W. Soper ...	5	79·3	117	32	20	5·8
H. Wilks ...	6	61·3	118	19	20	5·9
W. K. Steele ...	3	18·3	36	3	6	6·0
A. W. Webber ...	6	31	58	10	4	14·5
G. W. Mitchell...	3	40	99	10	6	16·5

W. K. Steele bowled 3 "No Balls;" and H. W. Webber 3 "Wides."

The Association football season promises to be successful.

On Wednesday last an opening game on Blackheath revealed some likely new men, and they will be badly wanted to replace the serious losses we have sustained. The card contains about 30 fixtures for 1st XI. (including such prominent clubs as Casuals, Clapton, Crusaders, Old Brightonians, Philberds and Barnes); and 15 for 2nd XI.

E. J. D. Mitchell succeeds H. J. Holman as captain, and E. Hunt is secretary.

Last year we had a really good team, and won the Inter-Hospital cup and the Surrey cup. This year we expect to play quite as strong, and mean to stick to both cups.

The first match came off on the 5th inst., *v.* R. M. A. Woolwich, and resulted in a draw—1 goal all.

COMFORTABLE and quiet APARTMENTS, 35s. per week, including board; bath-room and lavatory, fitted with hot and cold water. Busses and trains from London Bridge; cars from St. George's Church.—Mrs. Chapman, 1, St. John's Terrace, Hemberton Road, Mayflower Road, Clapham.

NOTICE TO CORRESPONDENTS.

The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Guy's Hospital Gazette,
OCTOBER 29, 1887.

HEREDITY.

No fitter subject of general scientific interest could have been chosen to be read before an audience of future medical men than that which Mr. Beddard took for his theme on the first night of the session.

After shewing that Darwin's curious, I might say ridiculous, theory of *Pangenesis* was unnecessary as well as contradicted by many well ascertained facts, he discussed the beautiful *germ-plasma* theory of Weismann, which affords an adequate explanation of the phenomena of Natural Selection.

I fancy the results he arrived at must have been somewhat of a shock to many among those of his audience who followed his arguments. Our text-books are so imbued with the Lamarckian philosophy, that the hereditary transmission of acquired peculiarities is taught as a dogma, and is held to as an article of faith by every orthodox and authority-venerating student.

Thus we learn that Brown-Sèquard started hereditary epilepsy in rabbits, by hemisecting their mother's spinal cord and pulling their hair; that a blow on a man's head can set up a neurotic inheritance in his descendants; and that we suffer from gout because our fathers drank more port wine than was good for them.

Now, dogmas are incompatible with true science: if we hold to dogmas we regard all facts that come under our notice through the mental spectacles of a byegone age, and are thus hindered from making any progress in knowledge.

I think, if we discard all preconceived notions and approach the subject with an unbiassed mind, that we shall find many of the clinical objections to Weismann's views will melt away, and that, in fact, clinical experience lends support to these views.

In the first place, I think we may regret Brown-Sèquard's results as purely accidental or untrustworthy, since they have not been confirmed by any subsequent investigator. Again, a man gets a blow on the head, which is followed by an attack of insanity. He then begets children who are insane, or shew signs of nervous instability.

Is this nervous inheritance the result of the blow, and so, an example of the "hereditary transmission of acquired peculiarities"? I trow not. There is something else at work here besides the mere blow on the head; or, otherwise, why do not all the Saturday night broken heads result in insanity? Predisposition here must come into play. We must always bear in mind that *the development of the individual is the index to the power of development (physiological as well as morphological) of his germ-plasma.* This follows naturally from the hypothesis or doctrine of the continuity of the germ-plasma.

Thus, if a man develops insanity in consequence of a blow on the head, it follows that the product of his germ-plasma, when subjected to similar stimuli, must develop similar affections—hence the tendency to insanity of his descendants. His insanity depends not so much on the blow on his head, as on the presence of some inherent variation in the spermatozoon or ovum which concurred in the making of him. Again, we have no evidence that too much indulgence in the pleasures of the table will set up gout in the man's descendants.

Of a large number of people who ate and drank too much, a certain number had gout, and their descendants now tend to develop gout if they, too, indulge, or do not keep their metabolic processes in order by sufficient exercise.

But this just illustrates our point,—that when the products of development of the germ-plasma of an individual are subjected to the same

stimuli as the individual, they will experience corresponding changes.

An attack of gout does not *produce a tendency* to gout in the patient's descendants, it merely *shows the existence of a tendency* to gout in the stock, which will result in an attack of gout in any of its members under certain definite conditions.

I think if clinical facts be examined in this light, it will be seen that none of them are incompatible with the truth of Weismann's theory.

E. H. S.

ABSTRACT OF CLINICAL LECTURE.

By Dr. PAVY.

Until lately our minds have been at rest as to the time of occurrence of the apical murmur, generally called presystolic or auricular systolic, as its originator termed it. In the *Lancet*, Dr. Dickinson has brought forward arguments to prove that this *bruit* is systolic in character. If this be proved, we must regard the murmur as being a commencing systolic. That the bruit is due to mitral stenosis there is no dispute; so the diagnostic indication is not affected whichever way we choose to regard the sound.

As you all know, the former view held is that, the constriction impeding the flow, on the contraction of the auricle, a murmur is produced. If this is correct, the bruit cannot be looked upon as a systolic mitral; nor should it occur if the valves close properly.

The cycle of the heart's contraction, as we know from observations on a patient with a defective sternum, and from the various physiological experiments on dogs and other lower animals, takes place in the following order:—

Starting with the short, sharp contraction of the auricle, this runs into and is immediately followed by the powerful ventricular contraction. The ventricle remains contracted for some time; then the heart becomes flaccid, not dilated, its muscular fibres ceasing to remain in a state of contraction. During this flaccid stage the venous pressure causes a flow of blood into the auricle and ventricle; then follows the auricular contraction; and so on.

The arguments brought forward to prove that the murmur is to be referred to the first part of the ventricular contraction are:—

That when the auricle has emptied itself, the ventricle in contracting has to move up the thickened valves. These do not close sufficiently rapidly to prevent regurgitation.

That the auricle is not strong enough to produce so loud a murmur.

That if produced by the auricular systole, there ought to be a sufficient length of time between the contractions of the auricle and ventricle to cause an interval between the sound produced by the auricle and that by the ventricle.

That the writer has seen the heart's impulse take place at the same time that the presystolic bruit is heard.

To these arguments I would produce the following answers:—

In mitral stenosis, with a funnel-shaped orifice, if the valves remain in one position you certainly do get regurgitation; but in ventricular contraction the valves are carried up and across the axis of the orifice; this carries up with it the small amount of blood upon the auricular surface of the valves, and to produce a sound the blood must move quicker than the valves, but both travel together.

Also, there ought to be an alteration in the character of the sound, corresponding with the closure of the valvular orifice—*i.e.*, the presystolic bruit if it be a commencing systolic, should become more hissing in character as the opening becomes smaller. But the presystolic sound does not change.

The auricular contraction, sharp and sudden, is certainly not nearly so powerful as the ven-

tricular; yet, with the accompanying hypertrophy, it seems quite capable of producing the murmur.

As to an appreciable interval in sound, one would not expect to get it; for the ventricular contraction appearing to the eye to be simply a continuation of the auricular, any interval in sound would be so slight as not to be detected by the ear, since there is a duration of sound, as of light; thus, in a musical note, the sound, though made up of a number of vibrations, appears to our sense as if continuous.

Dr. Dickinson, in saying that the shock of the heart against the chest wall goes with the presystolic murmur, opposes himself to the teachings of physiologists, who say that the impulse is synchronous with the first sound.

If the presystolic murmur be systolic in character, we should have to enormously increase the length of the ventricular contraction, for it must go through the presystolic murmur, often very long, and the systolic lasting to the closure of the semilunar valves.

In conclusion, Dr. Pavy said that he still held views as to the time of occurrence of the presystolic murmur strongly opposed to those lately advanced by Dr. Dickinson.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Sir—The suggestion made in the "Passim" columns of the Gazette for October 15th *re* the formation of a Photographic Section in connection with the Physical Society, is admirable, and I trust steps may be taken at once to place the section on a firm basis. Photography can be made available for many subjects which depend upon form, and light and shade for their recognition, but not for those subjects which depend chiefly upon their colour distinctions, therefore the department of the artist would not be entrenched upon.

Guy's has one of the finest, if not the finest, studio for photography of any hospital in London, with a commodious dark room, and good water supply. The arguments in favour of the photographic section are many, the principal have been touched upon in the paragraph I have referred to, but surely some use might be made of the many fractures and dislocations which come into the surgery, and are set or reduced without being seen by many of the students. If a photograph had been taken of the fracture or dislocation before and after treatment, how much more instructive than the diagrams in the text books.— I am, Sir, yours obediently,

A. R. F. EVERSHED.

SOME RECENT CONTRIBUTIONS TO THE THEORY OF EVOLUTION.

By F. E. BEDDARD, M.A., F.R.S.E.

(Concluded.)

There now remains for consideration a series of facts which appear to prove the exact contrary; those facts are derived from the study of pathology. It is well known that many diseases are hereditary; indeed, the expression "the sins of the father shall be visited upon the children" antedates by some thousands of years this generation of modern pathology. But a closer examination of the facts of the case shows that, after all, these arguments are not conclusive; it is true that a disease may be acquired and then may be transmitted; but then a disease is not comparable to a morphological peculiarity; and it is at least an open question whether many of these hereditary diseases are not due in some way (it does not matter for the present how) to the presence of organised germs, which might themselves be conveyed to the body of the fœtus and so initiate the disease. Until it is proved that some disease or deformity is produced by the action of external causes upon the adult body, without affecting the germinal protoplasm, and is hereditary, the arguments from pathology can have no weight in favour of the transmission of acquired characters. The instances, however, of structural modification apparently due to the direct effects of use and disuse, demand some explanation. This explanation is found in a process which Professor Weismann has termed "Panmixia." When an organ becomes useless, like the eyes of deep-sea animals, that is to say, useless to the species as well as to the individual, it in time disappears; as soon as Natural Selection ceases to reject the individuals who are in respect of the perfection of their eyes worse equipped for the battle of life—and it must be remembered that the minute individual variations already spoken of must occur—Panmixia takes place; that is to say, an inter-breeding of individuals, some of whom have worse and some of whom have better eyes. Clearly, therefore, this will result in a gradual deterioration and final disappearance of the eyes. What takes place in these cases is, in fact, the reverse of Natural Selection, or *Negative* Selection. Hence an extension of Darwin's own principle serves to account for modifications of structure which he himself was inclined to refer, with Lamarck, to the effects of use and disuse.

Besides variations, which, though apparently due to the direct effects of use and disuse, are really explicable by Panmixia, another class of variations was mentioned some pages above; those due to the effects of external conditions. The importance of the effects of changed conditions upon organisms is undoubted, but it can have no selective influence, inasmuch as *all* the individuals exposed to the condition, whatever it may be, must necessarily be equally affected. As an instance of this kind of variation may be mentioned the curious fact that deep-sea Crustacea are commonly found to have an extreme development of spiny processes upon the body. Again, the change in habitat from salt water to fresh has been proved to produce modifications of structure. But variations of this kind, due to climatal and other causes, can have no effect in the production of new species, for the reasons already stated, although they certainly may result in the extinction of a species, or a large number of individuals; in this case they might be the *indirect* cause of the modification of the survivors.

In short, the only kind of variation which has a direct relation to the origin of species through Natural Selection, is that intrinsic variation of which no satisfactory explanation has ever been given, except that of Professor Weismann. This explanation is, however, intimately connected with a theory of heredity; the two cannot be considered apart.

The process of sexual reproduction in all plants and animals consists in the union of two cells—of the male cell, or spermatozoon, with the female cell, or ovum. Moreover, this union is not a fusion of the whole spermatozoon with the whole ovum; but of the head of the spermatozoon, which is the nucleus of the cell from which it arose with the nucleus of the ovum. The heritable tendencies, therefore, must exist in the nuclei of the sperm cell and of the ovum respectively.

Agassiz has justly said that the greatest generalisation of modern biology is the discovery of the unicellularity of the egg, and he might have added of the spermatozoon, if it had been known at the time when he wrote—which it was not. The egg corresponds to a single one of those structural units—or cells, as they are termed—out of which the bodies of the higher animals and plants are built up. There is, however, a large group of organisms, the Protozoa, whose entire bodies consist of no more than a single cell. The earliest forms of life which appeared upon the earth must have been unicellular organisms or Protozoa; and the life history of every individual of the higher animal starts from this point, from a single cell—the ovum.

It has recently been proved that in the very young embryos of animals the cells which subsequently become ova or spermatozoa are perfectly similar, and absolutely indistinguishable from each other; it would be impossible to say from the inspection of the germ gland of a sufficiently young embryo whether it would eventually become a testis or an ovary. It was believed until recently that the germinal cells, destined to produce ova or spermatozoa, were, so to speak, set apart for this purpose at a comparatively late period, and were originally simply some of the cells which lined the body cavity of the animal.

Professor Nussbaum has gone a step further, and has been able to show that in many animals the germinal cells are not only recognisable as such in the young embryo, but can be traced back in successive stages to the ovum itself. This is evidently a most important conclusion, because it demonstrates what Professor Weismann has called "the continuity of the germ-plasma;" the germinal matter is not formed *de novo* in the body of the parent, but it is directly traceable to the germinal matter of all preceding generations. In reflecting upon this fact, it must be borne in mind that the direct connection of the germinal cells with the ovum is a different kind of connection from that which of course must exist between all the cells of the mature animal and the ovum, from which it arose; every cell in the body can naturally be traced back to the ovum; but then if we pass back through the various stages of development, and trace to its origin a muscle or a nerve-cell, we find that it gradually loses its distinctive characters until ultimately the embryo consists of a group of cells in which it is impossible to distinguish the future nerve-cell from the future muscle-cell; with the germinal cells the case is different: they retain certain peculiarities and can be recognised from the very first. There are other facts which are confirmatory of this view. In many animals the ovum leads a quasi independent life within the body of the animal; in the common *Hydra* the ovum moves about by the extension of pseudopodia like an *Amœba*, and nourishes itself by actually devouring, after the fashion of an *Amœba*, other ova. Similar processes have been observed in other animals, and generally speaking it seems safe to assert that the ovum is not nourished like the other cells of the body by the blood capillaries directly—that is to say, by the physico-chemical process of diffusion—but by the actual ingestion of solid particles of protoplasm. It would perhaps be unwise to lay too much stress upon these facts, because leucocytes have an existence which

is just as independent, but it is worth while to call attention to the matter.

Professor Weismann does not rest his theory of the continuity of the germ-plasma upon the observation of Nussbaum; he assumes that a certain amount of the actual substance of the ovum remains over unaltered, after the embryo has been formed out of the segmentation of the ovum, and that this serves as the foundation of the germinal cells of the new organism. This assumption cannot be actually proved to be correct; but it is at least better supported by facts than the opinion hitherto held, that the germinal matter of each successive generation is formed anew; it accounts for the phenomena of heredity, because it reduces this conception to a simple process of growth by division, like that of a protozoon where the cell continually divides and produces new individuals like each other. The difference, therefore, between a unicellular protozoon and a multicellular organism, is that in the latter each division of the germinal substance—the ovum—is followed by a process of development whereby the multicellular organism is built up. The multicellular individual is enormously larger than the unused remnant of the germ-plasma, but from the point of view of heredity it is to be regarded as merely an appendix, serving for the protection and the nutrition of the everlasting, immortal, germ-plasma. It is of course conceivable that the influence of external conditions should act through the body upon the contained germ-plasma, and so bring about heritable modifications: but in the first part of this paper reasons were given for believing that this was not the case. The experiments of Naegeli afford a powerful argument in the same direction; this botanist discovered that many Alpine plants, when cultivated in a garden, became so greatly altered that they could hardly be referred to any known species; but yet these same plants produced seed which when sown in poorer soil reproduced again the original form; and similar instances of reversion are known to most horticulturists. In these cases it is plainly obvious that the modification of the plant caused no modification of the germinal substance. Accordingly the inference must be that only those characters which exist in potentiality in the germ itself can be handed down to successive generations. This conclusion is not merely startling, but it seems to land us in an absurdity; if no acquired characters are transmitted, if an organism inherits only the characters of its parents, how can there be any evolution of living beings at all? Must it not be that all generations remain exactly alike? The second factor of Selection—viz., Variation—prevents the necessity for this conclusion, which would otherwise be logically unavoidable. After what has been already said it is hardly requisite to insist upon the fact that this variation is intrinsic, and not due to external causes or to the action or inaction in any direction of the organism. And it is precisely this kind of variation which has up to the present been unintelligible. The truth of the doctrine of Natural Selection is not affected by our ignorance of the causes of variation; it is sufficient to know that it exists. An explanation of variation is, however, bound up with Professor Weismann's theory of heredity.

It follows from what has already been said that the germ-plasma is continuous through all generations of animals and plants as something distinct from the body of the organism; finally we reach the unicellular ancestors of animals and plants, and here the germ-plasma, by the nature of the case, cannot be distinct from the body of the organism. The single cell which constitutes the body of a Protozoon or Protophyte, assimilates, digests, respires, excretes, and reproduces itself; in short, it performs all the functions which, in the higher animals and plants, are performed by variously specialised groups of cells.

Seeing that the germ-plasma is no longer distinct from the body generally, external causes, use and disuse, in affecting the body will necessarily also affect the germ plasma. Hence the causes of heritable variation in the unicellular organism are precisely those causes of which we saw reason to doubt the efficiency in the higher animals. When the Metazoa and the Metaphyta or the higher animals and plants were evolved from the lower, their germ-plasma retained, of course, the hereditary tendencies acquired by their unicellular ancestors through the influence of external conditions. Here, however, it would at first sight appear that variation must stop, inasmuch as the direct influence of surrounding conditions in producing variation would cease. Organisms would be only able to transmit those heritable tendencies already existing in their germ plasma. But all the higher organisms reproduce themselves by the sexual method, and this consists essentially in the mingling of a portion of the germ plasma of one individual (the spermatozoon) with a portion of the germ plasma (the ovum) of another individual; this, naturally, means a mingling of the heritable tendencies of two individuals, which are sure to be different. The offspring of this union, therefore, will combine the characters of their parents. The offspring of two other individuals of the same species will inherit in their turn a different set of heritable tendencies,

and thus variation will be established, which will, of course, increase with each union. The importance, therefore, in nature of sexual reproduction, is the production of variations upon which Natural Selection can act. It is hardly necessary to point out that this is an entirely novel conception of the meaning of sexual reproduction.

It is necessary, now, to revert to the actual processes which take place when the ovum is fertilised. It seems clear that the actual heritable tendencies are transmitted to the nucleus of the ovum by the nucleus (which is the "head") of the spermatozoon; the two combine together, and the resultant should be about the same size, at any rate not markedly larger than the original nucleus of the ovum. Suppose, for the sake of illustration, that when sexual reproduction first appeared, the germ-plasma of two individuals was perfectly simple though different; the offspring of these would contain in its ovum or spermatozoon two kinds of germ-plasma, but obviously half the amount of the paternal and half the amount of the maternal germ-plasma, inasmuch as the nucleus of the ovum or the head of the spermatozoon is of the same size in the offspring as in its parents.

In the third generation there will be four kinds of germ-plasma, each one-fourth of the size of that of the original ancestor, still contained in a mass of protoplasm of the same size as that which was occupied by the single kind of germ-plasma of the original ancestor. Ultimately it is obvious that a limit will be reached and the germ plasma will be no longer divisible, and the germinal cell will contain as many different germ-plasmas as it can hold. Sexual reproduction must, therefore, cease, and animals incapable of a sexual reproduction must die out. But sexual reproduction has not ceased although it is reasonable to suppose that this limit of sub-division of the germ-plasmas has been long ago reached.

A further study of the ovum and spermatozoon has revealed the clue to this enigma.

In the ovum before fertilization occurs the nucleus extrudes two bodies, which have been termed polar vesicles; when these were first discovered they were explained by the theory that the ovum was hermaphrodite, and that the expulsion of the polar vesicles, by getting rid of the male substance present in the ovum, rendered fertilization possible. This view was supported by the fact that no polar vesicles had been found in the ova of animals like the plant-lice, which reproduce themselves parthenogenetically, that is, without the intervention of the male.

It is now known that a single polar body is thrown off by parthenogenetic eggs, and that two polar vesicles are invariably extruded from the ova of animals that cannot develop without fertilisation. There must, therefore, be some important difference between the two polar bodies; and it has been observed that the formation of the first polar body of the sexually developing egg is different from that of the second polar body, but like that of the single polar body of the parthenogenetic egg.

Now, the egg, before it is ready for fertilisation or for development without fertilisation, has to grow to a comparatively large size and to form a certain amount of yolk by the activity of its protoplasm. It has been proved that the nucleus has a direct influence upon the formation of yolk; portions of the nucleus are budded off into the surrounding substance of the egg cell and become centres of yolk formation. That part of the egg nucleus which is concerned in the growth of the egg itself may be termed the idioplasma in contradistinction to the germ-plasma. When the egg is fully mature the idioplasma has finished its work, and being no longer necessary becomes an encumbrance; it is therefore removed as the single polar vesicle of the parthenogenetic egg and the other *first* polar vesicle of the fertilisable egg.

The second polar body of the sexually-developing egg now remains to be accounted for.

In speaking of sexual reproduction it was pointed out that the nucleus of the ovum and of the spermatozoon in all probability contain as many kinds of germ-plasma, accumulated from previous generations, as it is possible for them to hold, and that these various kinds of germ-plasma are incapable of further division. The only way, therefore, to bring about the possibility of sexual reproduction is by the continual removal in each generation of half the germ-plasmas in the ovum and spermatozoon respectively. This is affected in the ovum by the extrusion of the second polar body and by an analogous process in the spermatozoon. The extrusion of the second polar body of the ovum and the splitting off of a portion of the germ-plasma of the spermatozoon render sexual reproduction possible; without sexual reproduction variation cannot occur; without variation there can be no Natural Selection, and therefore no origin of new species among the higher animals.

From the *Lancet*, Oct. 29.—Sir,—Dr. Vincent Harris's letter in your issue of October 22nd shows that of all the medical schools Guy's passed the most men in the first division, and yet had none in the honours list. It was as Dr. Harris suggests—namely, that all those six men preferred trying for a good pass to competing for honours under the present conditions, which the majority of those interested in the matter would like to see abolished.—I am, Sir, yours truly, W. Hale White, M.D.

Passim.

We recommend those of our readers who have not yet done so, to peruse a very interesting paper by our late editor (Mr. W. L. Braddon) in last week's *Lancet*, upon the subject of the mechanism of cerebral hæmorrhage, with some suggestions of what the author considers a promising mode of treatment. It will be wise to say nothing of the probable merits or defects of this treatment until we have some substantial results before us. Mr. Braddon's argument is chiefly from *a priori* considerations, but not quite unsupported by clinical evidence. As he says, the do-nothing attitude assumed by modern physicians in the presence of cases of cerebral hæmorrhage, according to recognised traditions, is practically an attitude of helpless despair.

Mr. Wacher asks us to correct a misprint, which we overlooked in the proofs of his paper on "A Case of Abscess of the Liver," in No. 17 of the Gazette. He says, "Will you mention that the statement in the first page of my case, that the patient had ʒiij of brandy every hour was erroneous, and that ʒiij was the quantity. I am afraid that if this is not corrected, an exaggerated idea of the rate at which we live down here will become prevalent at Guy's." Mr. Wacher's concern for his reputation is not unnatural under the circumstances, though we fancy that it was is no real danger—amongst those at least who knew him. We apologise for the error.

We have been asked to remind men that the Club remains open on "Physical" evenings, so as to enable those who are staying up for the meeting, to dine there without leaving the Hospital. It was feared that this was not generally understood.

The attendance on the 20th instant was fairly good, but not so large as we had hoped, and as Mr. Ricketts's paper deserved. The discussion (with one or two exceptions) added but little to the interest of the proceedings. The audience consisted largely of two classes, those who had not yet begun to read physiology, and those who had forgotten much of what they had previously read. So most of us discreetly declined to be drawn into an exposure of our ignorance for the amusement of our friends—an unpatriotic course, perhaps, but not altogether inexcusable. Smoke was the order of the day; and it was really quite refreshing to note the evident satisfaction depicted upon the features of our worthy president, who set a noble example of the only right method of consumption of the fragrant weed—that is, of course, in the bowl of a goodly briar.

Talking of smoke reminds us of the very successful meeting held to transact certain business connected with the new Club a fortnight ago, which was very nearly dispersed by the horrible sulphurous fumes which suddenly emerged from the stove and rendered the atmosphere of the chemical theatre even more unpleasant than usual. Mr. Durham presided on this occasion, and his remarks were as appropriate and kindly as ever, and were, as ever, heartily appreciated by his audience. A permanent committee was appointed, an auditor of accounts elected, and Mr. Lushington, Dr. Wilks, Mr. Edward Cock, Sir Henry Peek, and Mr. Samuel Hoare, were unanimously invited to honour the Club by accepting the title of honorary members. The original committee and those members of the staff who have interested themselves in the scheme from its commencement, received the hearty thanks of the meeting before it dispersed.

NOTICE.

"Philosophia Medici" is held over this time, through pressure of space, owing to the unusual quantity of Physical Society and Hospital news. "Mr. L. Epispasticus" will shortly continue the account of his voyage on the "Aspergillus."

Physical Society.

HAS ELECTRICITY A RÔLE IN THE ANIMAL ECONOMY?

[*Abstract of a Paper read by Mr. Ricketts before the Society, on Thursday, October 20th.*]

Mr. Ricketts commenced his paper by describing those electrical phenomena exhibited by the muscle-nerve preparation, known as the currents of rest and action. He laid stress on the fact that in these cases katabolism is accompanied by production of a negative potential; and he adduced other facts to show that, where katabolism is going on in the body, a negative potential is produced. He then went on to detail the facts connected with the electrotonic state; and described experiments which proved Pflüger's view that a stimulus is only produced by a rise of katelectrotonus or fall of anelectrotonus, mentioning that this view explains, with one exception, the facts embodied in the so called "Law of Contraction."

The author then argued that we are bound to suppose a stimulus to be accompanied by a sudden onset of katabolism; and that therefore, adopting Pflüger's view, we are driven to suppose that a sudden fall of potential induces a sudden increase of katabolism; that therefore a low potential is favourable to katabolism; and that consequently the irritability of the nerve near the kathode in the electrotonic state is caused by increased katabolism. He mentioned instances of increased irritability of nerves where we know increased katabolism must be going on; pointing out however that, where katabolism has gone too far and death has begun, irritability is decreased; and explaining in this way the apparent anomaly that, when a very strong descending current has been flowing through a nerve, the breaking contraction is absent.

Proceeding with his argument, Mr. Ricketts then showed that decreased irritability ought to be accompanied by anabolism; that is, that a high potential should favour anabolism. And he adduced some evidence in favour of this point. He then, in passing, explained on this theory how it is that, in electrotonus, at the kathode the irritability is increased and at the anode diminished; and why, on breaking the current, there is a rebound of the conditions.

Extending his deduction, that high potential promotes anabolism, to the tissues at large, and bearing in mind the fact which is so conclusively proved that katabolism throughout the body produces negative potential, he then pointed out what an advantage this effect of katabolism might be. For a low potential at one point necessarily means a high one at another; and therefore katabolism might itself be the means of producing anabolic changes. And therefore he suggested the view that some of the waste energy set free by the katabolism in the body might be, not frittered away in a purposeless manner into heat, but transformed into electrical energy, to be made use of again in synthetical chemical changes; leaving the heat production to be controlled in a definite manner by the central nervous system.

The author, in conclusion, followed the effect of an impulse up a sensory nerve into the brain, showing how the changes it effected there would cause a definite state of electrification depending on the condition in which the impulse found the organ. And he was then led to suggest the view, that every state of consciousness might be accompanied by a definite state of electrification of the brain; the state of electrification varying with the state of consciousness. But he left it an open question whether or not the electrical state of the brain was a factor in the production of consciousness.

The debate was opened by Mr. Campbell, who spoke of the difficulty of following the reader's particular line of thought in such an obscure subject, where there were such opportunities for misunderstanding to arise. He made, however, some interesting comments on the paper; but was of opinion that the view, which the author considered established, that a muscle in the normal state exhibits no current, was not definitely proved; and he believed that the changes in irritability, which a constant current produced in a nerve, might be accounted for by the condition of strain into which the nerve was thrown by the action of the current.

Mr. Starling quoted some experiments by Drechsel, which might have an important bearing on the role of electricity in the animal body. This observer found that by passing rapidly alternating currents of low intensity through solutions of various substances, he could imitate in many cases the reactions that occur in the animal body, in which the processes of hydration and dehydration are supposed to be involved. Thus he found that by this means he could convert Ammonium Carbonate into Urea. He thought Mr. Ricketts might have considerably increased the force of his arguments, if he had taken into consideration the proofs lately afforded by Gaskell of the existence of the *positive variation* which accompanies increased anabolism, and affords a complete antithesis to the negative variation accompanying increased katabolism. He observed that the reader of the paper had

come to an exactly similar conclusion as he had in a paper read before the Society 18 months ago, namely, that katelectrotonus promotes katabolism, and katabolism causes katelectrotonus, or rather, a lowering of potential, and similarly with anabolism and anelectrotonus.

The natural corollary of this conclusion is, that if a constant current be made to flow through a nerve, the strength of this current must increase indefinitely, and the deflection of a galvanometer needle in the circuit of the battery must continually increase.

This *a priori* conclusion has been verified experimentally by Du Bois Reymond, who seems to have attacked the subject empirically.

This increase of current involves an expenditure of energy on the part of the nerve, which must come from increased katabolism—so that the *total result* of the passage of a constant current through the nerve must be an increase of its katabolism.

Mr. A. E. Durham replying to the previous speaker's contention, that if the natural currents in the living body had been of no use they would have been evolved out of existence, was of opinion that they really did not occur. In the case of a voluntarily contracting muscle no secondary tetanus is obtained in the rheosopic experiment. He suggested an explanation of this fact which, he thought, did not controvert the views held by Mr. Ricketts.

Mr. R. E. Williams thought the author should have mentioned the fact that the current of action is another name for the negative variation which occurs during the latent period of a muscular contraction. He asked the reader to explain the curious fact that in life the irritability of a nerve is greater in the parts nearer the spinal cord, and diminishes peripherally. He wished for the author's explanation of the phenomena of degeneration in nerves, where there is katabolism with diminished irritability from the first.

Mr. Thistle was disappointed with the conclusion of the paper. He thought the author might have carried his argument further into the question of consciousness as related to electrical phenomena.

Mr. Ricketts having replied, the proceedings terminated with a vote of thanks to him for his interesting paper.

The next Meeting will be held on Thursday, November 3rd, when Mr. Thistle will read a paper, entitled—"Hints on Climate."

Hospital News.

HOUSE APPOINTMENTS.

October, 1887.

House Physicians.

W. F. Clarke, M.R.C.S. ... ... November.
T. Fisher, M.R.C.S. ... ... January.

House Surgeons.

E. P. Manby, M.B., B.C., Cantab. ... November.
H. W. Drew, M.R.C.S. ... ... January.

ROYAL COLLEGE OF PHYSICIANS.

Final Examination.

October, 1887.

Pass List.

W. J. Bearblock.
H. J. Campbell.
H. W. Lewis.
W. Fisher.
A. H. Williams.
F. Pearce.
H. A. Edmonds.
D. T. Jones.
H. B. Marriott.
C. W. Hogarth.
A. L. Lumley.
R. J. Cook.

ROYAL COLLEGE OF SURGEONS.

F. W. A. Bryden.
J. D. Cruickshank.
H. P. Ainsworth.
G. M. Jones.

FINAL CONJOINT EXAMINATION.

J. L. Roberts.
E. H. Starling.
P. W. Streatfield.
R. Thompson.
T. N. Wright.

It is with much regret that we announce the death of an old and valued servant of the Hospital. Mr. Ware died on Friday the 14th inst. of pneumonia. His health had been failing for some time, but he remained at his work in the post-mortem room almost until the last. His connection with Guy's extends over about thirty years, and his duties during this period were always most conscientiously discharged.

INTERESTING CASES IN SURGICAL WARDS.

23 Accident—Impacted Fracture of Neck of Femur.
22 Lydia—Tumours of Thumb and Fingers.
7 Martha—Mammary Tumour.
18 „ Mammary Tumour.
12 „ Epispadias.
2 Naaman—Gonorrheal Arthritis of Knee.
11 „ Articular Ostitis of Femur.
6 „ Articular Ostitis of Humerus.
13 Charity—Ulceration of Face—Syphilitic.
15 „ Caries of Cervical Spine.

NOTICE.

To all the Profession, and to Guy's Men in particular.

In the park-like grounds in the rear of one of the residences of the staff in St. Thomas Street (and formerly in the occupation of Edward Cock, Esq., F.R.C.S.), two forest trees, planted by that eminent Surgeon some forty years ago, are now being hewn down. That all may possess a memento of the Father of Guy's Hospital —a regular G. O. C.—the present occupier will part with chips at 1/6 each, small logs at 3/-, decidedly big ones at 5/-, extra d-b-ones to highest bidder; one really grand old loggerhead, somewhat afflicted with earwig, good at heart, but altered externally by senile decay, and in character approaching to touch-wood, will be given away for trouble of cartage. First come, first serve. Supply limited. Store tickets not recognised. Terms net; carriage extra. No change given; *quid pro quo* not guaranteed.

To the scrupulous.—The above implies nothing unprofessional; it is strictly in accordance with precedent, for which see current daily papers.

Latest telegram.—"* * * but remember Teddy!"

NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

(Continued.)

HEART DISEASE.

Endocarditis is of three forms—

Acute.
Chronic.
Ulcerative.

Acute Endocarditis.

Causation.

1. Rheumatism in about half the cases.
2. Chorea.
3. Pyœmia.
4. It is universally stated that some of the specific fevers are causes, *e.g.*, scarlatina, diphtheria. It is doubtful if scarlatina ever causes it apart from the rheumatism which so frequently accompanies it. And diphtheria is still more doubtful.

Chronic Endocarditis.

1. Is a sequel of acute, so that the causes are the same, except that we must exclude pyœmia on account of its fatality.
2. May be chronic from the first, and then its causes will be—

Rheumatism,
Strain,
Chronic Bright's disease.

Ulcerative Endocarditis.

1. In the large majority of cases is secondary to chronic endocarditis.
2. It may be idiopathic (unless it is shown that in all cases it is due to an organism called the "mycosis endocardii," a micrococcus).
3. Pyœmia, especially puerperal pyœmia. It is a fact of clinical importance that puerperal endocarditis affects the valves of the right side, especially the tricuspid.
4. There is the view that it is due to the growth of the specific organism mentioned above.

MORBID ANATOMY.

Acute Endocarditis.

Naked eye appearances.

1. A row of small bead-like granulations along the contact edges of the valves, towards the blood stream. This is on the auricular surface of the mitral and the ventricular of the aortic.
2. These granulations may remain single or may run together into warty masses of variable size. Upon these fibrin is deposited, at first as a little cup, but ultimately it may be in long branching clots.
3. These masses of granulations or clots, waving to and fro in the blood stream, come in contact with other parts of the endocardium and set up acute endocarditis at their points of contact; so that it is said that acute endocarditis is a disease of the valves; and if other parts of the lining membrane are affected, this is always secondary (Moxon).

Sometimes the inflamed valve undergoes softening, and the result is an ulcer, and this may go on to the formation of an aneurysm of the valve, or even perforation. This perforation is rapidly closed by granulations or clotting; and so the valve may be capable of exercising its function, and after death it may be overlooked. This softening may involve the chordœ tendineœ and lead to their rupture, and thus cause a very severe form of heart disease.

Microscopically.

The vegetations present throughout numerous nuclei derived partly from proliferation of connective tissue and partly from extravasated leucocytes. At the apices of the granulations irregular masses of protoplasm are found which are the altered endothelial cells. The infiltration of leucocytes extends downwards into the substance of the valve.

Ulcerative Endocarditis.

In ulcerative endocarditis (or malignant endocarditis) groups of micrococci are found in the vegetations. These have been designated "the mycosis endocardii." The ulcerative process is believed to be due to the presence

of these organisms. Further than that, the shedding of these organisms into the blood stream, together with portions of the affected valves, is believed to be the cause of the pycemic symptoms which characterise the disease. Dr. Wilks calls it "arterial pycemia."

N.B.—Ulcerative endocarditis in the vast majority of cases is a complication of chronic endocarditis. Now and then it seems to arise without previous disease, especially in puerperal cases, and it is to be noted that in these cases it attacks the valves of the *right side*.

Chronic Endocarditis.

The extravasated nuclei become converted into fibrous tissue, and this undergoes the usual changes of contraction, producing deformity of the valves to a greater or less degree.

Naked eye changes in aortic valves.

They become more or less deformed on account of cicatricial contraction, so that—

1. They may be little functionless masses projecting like shelves.

2. A cusp may be torn away at one side and hang down.

3. Eversion of the edges of the cusps may take place (not a dangerous result). The valves being previously diseased, fail to meet at their free edges and to support one another, so that when the regurgitant stream bears on the edges it everts them towards the ventricle.

Perhaps the most important form of aortic disease is one not due at all to the valves, but to primary disease of the aorta. This occurs in young hard-working men, and also there is good reason to suppose it to be the result of syphilis.

The first part of the aorta undergoes softening, so that under exertion it becomes dilated. The valves themselves being formed of white fibrous tissue will not stretch, but the aorta between them yields, partly from its natural elasticity and partly from its softened condition. The result is that the valves are separated from each other at their attachment perhaps a quarter of an inch. Also, on account of tension, they become converted into deep, narrow pockets. Eversion of valve may take place and complicate the result.

In a third form of disease the valves become adherent at their edges. The septa between the original valves may disappear; and a sort of funnel-shaped orifice results. Sometimes only one septum disappears, and an aortic valve with only two cusps is the result. All intermediate changes are met with.

Changes in a Cuspid Valve.

1. The cusps of the valve become thickened and contracted.

2. The chordæ tendineæ become thickened, often adherent to one another (so as to form large, thick bundles), and shortened, so as to draw down and fix the thickened cusps.

3. The musculi papillares undergo fibroid changes at the apex and increase the contraction.

4. The cusps become adherent at their edges, and so—

5. The orifice becomes contracted. The result is stenosis ("button-hole mitral").

This is the commonest form of mitral disease pathologically, although mitral regurgitation is the most common clinically. The explanation is this, that the stenosed valve will permit regurgitation as well; and the clinical symptoms of the latter will altogether overshadow those of stenosis. Sometimes, however, undoubted regurgitation is met with, the orifice being held rigidly open and also enlarged; and sometimes as a result of ulcerative endocarditis the chordæ become divided, so that the cusp flaps backward and forward and is quite functionless.

Results of Morbid Changes.

Mitral Stenosis.

Left auricle becomes dilated and hypertrophied.

Right auricle and ventricle follow.

Left ventricle remains small.

N.B.—In a few cases of mitral stenosis the left ventricle is hypertrophied; probably from coincident regurgitation.

Mitral Regurgitation.

Same as above, with the addition of hypertrophy and dilation of left ventricle.

The question suggests itself as to why the left ventricle is hypertrophied in mitral regurgitation.

1. It cannot be that first there is increased pressure in the veins and that this is ultimately transmitted through the capillaries to the arteries and the left ventricle, for the same condition obtains in mitral stenosis.

2. Niemeyer suggests that if the ventricle did not thicken it would not be able to do its extra work, and the heart must stop.

3. Possibly the hypertrophy is due to the increased pressure in the left side of the heart. In regurgitation blood is driven back into the left auricle. This causes hypertrophy of the walls of the left cavity, and this in contracting drives the blood back again into the ventricle, so that on account of this increased work both cavities thicken.

Aortic Disease.

Stenosis and then regurgitation.

N.B.—Practically these two conditions go together except in a very few cases. Aortic disease is very quickly followed by regurgitation.

Stenosis alone is so rare that a systolic bruit should suggest an aneurysm.

Aortic stenosis leads first to hypertrophy of left ventricle. There must be a limit to this, and when this is reached the muscular fibres undergo fatty degeneration. Then dilatation ensues. The original mischief increases; and regurgitation follows the dilation and hypertrophy. Ultimately the right cavity becomes affected, and so the result is the immense *bovine heart* of aortic disease. The largest specimen is that of Dr. Peacock's—48 ozs.

N.B.—Immense hearts with hypertrophy and dilation of all cavities are met with in chronic Bright's disease.

In these cases the valves are healthy or only a little diseased by thickening or atheroma.

The effect of left-sided disease, as already seen, ultimately results in hypertrophy and dilation of the right cavity; but hypertrophy and dilatation of the right heart alone is almost invariably due to chronic bronchitis and emphysema or chronic fibroid phthisis.

Primary Pulmonary or Tricuspid disease is excessively rare.

In these cases—

The heart is described as square.

The right ventricle takes part in the formation of the apex, equally if not more than the left.

(To be continued.)

Sport.

RUGBY FOOTBALL.

Guy's *v.* Old Merchant Taylors.—At Willesden Green, on October 8th, and resulted, after a very feeble display by our team, in a victory for the O. M. T's. by 1 goal and 2 tries to nil. The forwards were chiefly to blame; scrimmage-work, passing and collaring being alike execrable.

Our team consisted of—E. Budge (back); S. S. Wallis, C. J. Prince, Albert Martin (three-quarter backs); H. G. Steele, H. J. Bryant (half-backs); A. D. Fripp, A. Allport, J. Fawcett, W. C. Swayne, N. Instone, W. G. Rogers, Huntley, Hunt, and Culmer (forwards).

Guy's *v.* Kent Rovers.—At Blackheath, on Saturday, October 15. Drawn—neither side scoring a point. We had a much better team and there was a great improvement all round—especially forward, where the scrimmage-work was decidedly good. There was a very large attendance of spectators, whose constant encroachment on the field of play materially interfered with the game. Evans, Steele, Allport and Wallis were most conspicuous, the latter playing a really grand defensive game.

Team:—S. S. Wallis (back); H. L. Evans, W. G. Mitchell, C. J. Prince (three-quarter backs); H. G. Steele, H. J. Bryant (half-backs); A. D. Fripp, A. Allport, J. Fawcett, R. M. H. Randell, N. Instone, W. G. Rogers, W. C. Swayne, and Desprez.

Guy's *v.* Croydon.—At Croydon, Saturday, Oct. 22nd. We won by 1 goal to nil, after a very fast and even game. Our opponents had got together a stronger team than usual, but right from the start our men settled down to good and continued work, and only once allowed them to become really dangerous. Evans got the try from a capital pass by Bryant—the play of these two being the most noticeable feature of the match. Cuff placed a good goal.

Our team consisted of—S. S. Wallis (back); H. L. Evans, H. Cuff, and F. M. Russell (three-quarter backs); H. G. Steele and H. J. Bryant (half-backs); A. D. Fripp, A. Allport, J. Fawcett, N. Instone, W. G. Rogers, Wilks, H. B. Rygate, G. M. Pratt and Desprez (forwards).

Guy's Hospital 2nd XV. *v.* St. Thomas's Hospital 2nd XV.—Played at Lambeth, on Saturday, October 8th, and resulted in a win for Guy's by 2 tries (Greig and Lawton) to nil.

Guy's 2nd XV. *v.* Rosslyn Park 2nd XV.—Played at Acton, Saturday, October 15th, Resulted, after a good game, in a win for Rosslyn by a goal and a try to 2 tries (Raw and Evans). Guy's were unfortunate in not having a good place-kick. Raw, Rygate, Moyse, and Carpmael played well. Team:—Carpmael (back); W. Culmer, W. A. Haslam, and H. Rygate (three-quarter backs); G. Rowell and E. Evans (half-backs); T. O. Raw, M. Jenkins (capt.), A. E. Moyse, A. E. Kelsey, H. Greig, Donaldson, Huntley. Richardson and Mackeson (forwards).

Guy's 2nd XV. *v.* London Hospital 2nd XV.—Played at Blackheath, Saturday, October 22nd. Guy's won by a goal and 2 tries to a goal. The tries were got by Barr, Carpmael, and Fraser; goal placed by Budge. Moyse, Rowell, and Culmer also played well for Guy's. Team:—Budge (back); Graham, Barr, and Fraser (three-quarter backs); G. Rowell and Carpmael (half backs); M. Jenkins (capt.), A. E. Moyse, W. Culmer, A. E. Durham, H. Whyte, Huntley, C. H. D. Ralph, Mackeson, Henderson (forwards).

ASSOCIATION.

Guy's *v.* Clapham Rovers.—Played at Wandsworth, on Saturday, October 15th, and after a good game we won by 3 goals to 2. The goals were kicked by Holman (1) and Hunt (2). We were not by any means fully represented; A. T. Brown, the brothers Mitchell, Woodham and Harman all being absentees.

Guy's *v.* Chiswick Park Club.—Played at Chiswick, on Saturday, October 22nd. We were badly beaten by 4 goals to nil. Considering that there were only three of last year's Cup team playing, the result is scarcely to be wondered at. Owing to examinations, &c., we have not yet been able to place our full team in the field, but hope to get better together before long.

For the benefit of those who were not able to attend the general meeting of the Football Club, on Thursday, October 20th. it may be as well to announce that the Association Ground for this season will be at Lee; dressing-room at the Lord Northbrook, scarcely a minute's walk from the station.

The Honour Cups for the season 1886-87 have been awarded to H. J. Holman and A. C. Roberts.

COMFORTABLE and quiet APARTMENTS, 35s. per week, including board; bath-room and lavatory, fitted with hot and cold water. Busses and trains from London Bridge; cars from St. George's Church.—Mrs. Chapman, 1, St. John's Terrace, Hemberton Road, Mayflower Road, Clapham.

TO INVALIDS.—A married Physician, of considerable experience and success in the treatment of disease, is desirous of receiving a Lady or Gentleman in the hope of cure: his residence is detached and pleasantly situate on gravel soil, about 7 miles west of Paddington. Terms 3 guineas per week. Address M.D. Fairholme, Hanwell, W.

Guy's Hospital Gazette,

NOVEMBER 12, 1887.

CLINICAL LECTURE.

By Mr. DURHAM.

I am going to speak to you to-day, gentlemen, about a very simple but sometimes a troublesome kind of case, I mean a case of Hare-lip. This I am going to do for three reasons; in the first place because we have a case of it now before us; in the second place, because such little accidents often occur, and you may have one any time in practice, on which you may be tempted, and quite rightly tempted to operate, and I will therefore go over some points of the operation; and thirdly, because I have taken great interest and have had a great deal of experience in cases of this kind.

What hare-lip is you all understand; it is a fissure of the upper lip; it is congenital, and is really an arrest in the proper development of the subject, and consists in the failure of the complete closing in of the lateral processes. A failure on one side is called a unilateral fissure, on both sides a double fissure.

The fissure is rarely met with in the middle line, and so the term, hare-lip, is inappropriate, as the fissure in the hare's lip is always in the middle line. The fissure then is always on one side or the other, or on both sides.

One or two cases, however, of a fissure in the median line are recorded; there was one in this Hospital under Mr. Howse; in this case the inter-maxillary bones were also deficient.

The next point is that when the lips do not grow properly there may also be a failure in the palate, and the soft and hard or soft palate alone remains fissured, and so the nares and mouth form one large cavity.

Mind I do not say that cases of hare-lip have lways an accompanying fissure of the palate, but a fissure of the entire palate has always a hare-lip in connection with it. This, however, is not always the case with a fissure of the soft palate only.

The period for operation on both these deformities is next to be considered. Ought the lip to be operated on before the palate? If the fissure is on one side only, it is generally on the left. In this case to-day it is on the right side, and so forms an exception to the rule. If it is one-sided, it may extend not only through the lip but also through the alveolus, through the outer part of the inter-maxillary bone or all through the palate and superior maxillary bone, the horizontal portion being deficient and the vomer remaining; or you may have the fissure on both sides, when the inter-maxillary bones project forwards, producing hideous deformity.

I have seen several cases in which in place of the fissure an apparent scar exists, looking as though a more or less successful operation had been performed. But on asking the patient when he first noticed this, he would state that he had been born so.

In the double disease if nothing is done, beyond the hideous deformity, the articulation is wretched, and the child leads a miserable existence owing to the taunts contumely, and insults continually, heaped on it by its companions; for children are the greatest tyrants in existence. And we are almost tempted to regret that such unfortunates ever survive their birth. But a very great deal can be done for them.

I was once called to see a child who had a double cleft and little or no nose. He was a first child, a boy, and heir to large estates. His parents were both good looking. On my arrival the father said, "for heaven's sake let the child die!" That was eight years ago, and the child is therefore about eight years old now. He is his father's pet and his mother's joy, and his grandfather seems as proud of him as his father

is. He is very intelligent and speaks well, and with the exception of a small scar on his lip, and a nose a little on one side, is really a good looking boy.

In the child before us, Mary Halsey, a little girl apparently—for you should remember that this disease is more common in the male than in the female sex—in this girl there was a wide cleft of the upper lip on the right side, and this cleft is associated with a cleft through hard and soft palates. Generally speaking, when you get a fissure through the hard and soft palates you have a double hare-lip and projection of the inter-maxillary bones. The child's mother has never been very strong, has had two miscarriages, and her father and brother died of consumption. With regard to the subject of heredity, those who have had cleft-palate are liable to have children similarly affected. Another important point to consider is that those who are subject to this deformity are subject also to constitutional weakness. I remember a case of a nice-looking young woman who had a cleft palate and a hare-lip; the latter had been operated on in childhood, and she now wanted something done for the former, as she was engaged to be married, the proviso being that she should have something done to the roof of her mouth. I operated upon her successfully, but 12 months after I was called to see her, she had been confined, and a baby born with her old deformity. She had two more children, and each presented the same deformity. As an interesting fact in natural history bearing on the point, I may mention that some years ago all the young lions at the Zoological Gardens had bad cleft-palate, but they altered the food of the lioness in pregnancy, and so remedied the defect.

Let us ask ourselves, then—What is to be done? The first point to determine is whether the child can be fed. If this can be done, leave the operation for a few days, or even a week or two. If, however, it cannot take nourishment, the operation must be hastened. I have operated as soon as a day and a half and two days after birth. You must bear in mind that if you have to operate for a congenital or an acquired deformity, you should do so as soon a possible, for if you let growth continue, this will increase the deformity, whereas if you operate early growth will go on in conformity with the new condition in which you have placed the parts.

The child in question to-day could take food fairly, yet at four months old the fissure had become wider, and the inter-maxilliary bone more projecting than before. It was then brought up to the Hospital, and I decided to operate first on the lip. I am not sure whether it would not be better sometimes to operate on the palate before the lip, but one's idea is to get rid first of the visible deformity.

Let us now proceed to the operation itself, which may be divided into three stages.

First.—Free each portion of the lip so thoroughly from its deep attachments that the edges can be brought together without undue traction upon them.

Secondly.—Pare the edges of the fissure.

Thirdly.—Bring the pared edges together in such a way as will favour adhesion. Sometimes the edges will meet easily, without cutting; sometimes you will have to separate the attachment of the alveolus to the lip. Sometimes what represents the frœnum is short and tight, and the inter-maxillary bone projects forwards, and unless you separate the attachments and remove part of the inter-maxillary bone you will not get the edges well together.

How to deal with the projecting inter-maxillary bone depends on circumstances; if it projects so much forward that it is impossible to make a decent face without removing the bone, cut it with the bone forceps or a chisel. This always gives a charming result at first, but as the child grows up the two lateral portions of the bone come together, and the teeth of the under

jaw become forced outside those of the upper, and the lower jaw is projected and the palate narrowed. In the present case I did not cut the bone but bent it back, and this I believe to be a safer and more effectual way of proceeding. In paring the edges of the fissure it is always advisable to cut off enough, and it is also important not to leave an ugly notch at the margin. Do not, therefore, cut straight down, but curve your incision with the concavity towards the fissure.

Another important point is not to lose blood; remember that the coronary artery bleeds more than the labial, and that the former lies at the junction of the mucous membrane with the skin. Twist the vessel, if necessary, but do not ligature it, and in securing the parts, do not use hare-lip pins, which are really one of the relics of barbarous surgery; they impede the circulation, and consequently impair nutrition and union. Use a continuous suture. Begin in the middle, and tie; and then use one end to sew towards the nose, and the other to sew towards the edge of the lips. The best material for this purpose is fine fishing gut, or fine waxed silk. Do not trust, however, to these sutures alone, but use some fine unirritating sticking plaster.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

"E. H. S." ON HEREDITY.

SIR,—The question whether acquired peculiarities are or are not transmitted by inheritance is so important, both from the point of view of general biology and from that of pathology, that I should be glad if you can find space for the expression of certain objections, which, as it seems to me, a reader of "E. H. S.'s" paper on "Heredity" might fairly bring against his argument.

"E. H. S." rejected with some scorn Darwin's theory of Pangenesis, by the aid of which that great naturalist made a confessedly speculative effort to solve the problem of Heredity. Let us see how "E. H. S." deals with the question.

He takes the case of a man who has received a blow on the head which is followed by an attack of insanity, and who then begets insane children; and he asks—"Is this nervous inheritance the result of the blow, and so an example of the hereditary transmission of acquired peculiarities? I trow not. There is something else at work here besides the mere blow on the head . . . Predisposition here must come into play."

In short, we want an explanation of the fact of "nervous inheritance," and we are told that "Predisposition" is the key to the solution of the question. But this "Predisposition" is but another word for the same fact, and the apparent explanation is in reality nothing but a restatement in fresh terminology of the original question. The preferred substitute for Pangenesis is an argument in a circle; and if the word "Predisposition" leaves us still at a loss, it is assuredly but small comfort to remind us that "the development of the individual is the index to the power of development (physiological as well as morphological) of his germ-plasma."

We have all heard of the man who explained the action of opium by attributing to the drug a sleep-producing virtue, and we should not have thought that he had in any way strengthened his position if he had added that the sleep-producing power of opium is the index to the efficiency of the narcotic principle in the drug.

So far the argument of "E. H. S." only sins against Logic, but in the latter half of his paper he does violence to Fact. For, in the interests of "the beautiful germ-plasma theory of Weismann," he makes the bold assertion that we have no evidence that too much indulgence in the pleasures of the table will set up gout in a man's descendants.

Now, here it will be observed it is not a question of rival theories. "E. H. S." makes a categorical statement as to a matter of fact, and if words mean anything there can be no obscurity in the answer to the question—Is this statement true or not? The appeal is not to argument but to clinical experience, and it need hardly be said that the Clinical History of gout in hundreds of well observed cases has long ago proved that the exact opposite of "E. H. S.'s" statement is the fact.

Gout indeed is one of the difficulties in the way of those who wish to abolish the doctrine of the hereditary transmission of acquired peculiarities, and it is curious, not to say ridiculous, to see how "E. H. S." deals with it. I will quote his actual words. He writes—"Of a large number of people who ate and drank too much, a certain number had gout, and their descendants now tend to develop gout *if they too indulge*, or do not keep their metabolic processes in order by sufficient exercise."

Now, this account of gout may no doubt help to dissolve the objections which have been made on clinical grounds to Weismann's views: only, unfortunately, it obscures, if it does not actually deny, the most conspicuous and important fact in the natural history of the disease; the fact, namely, that the descendants of gouty ancestors even if they do *not* indulge, and do not expose themselves —or (if "E. H. S." prefers the phrase) expose the "products of the development of their germ-plasma"—to the same stimuli as their ancestors, yet, nevertheless, do actually experience "corresponding changes" in their big toes and elsewhere. To say as "E. H. S." says, in the last paragraph but one, that an attack of gout does not produce a tendency to gout in the patients' descendants is much the same as saying that the receipt of a dividend does not produce a tendency to wealth in the rich man's children. The truth of the remark is undeniable. But surely "E. H. S." would not deny that the process of money making which has made the receipt of a dividend possible *may actually cause* and not merely *shew the existence of a tendency towards* wealth in the rich man's heirs.

If there are any two facts in the pathology of gout which may be said to be established, surely they are—

1. That a dietary of the port wine type leads to gout in the individual. In other words, by a certain mode of living he *acquires* a peculiarity.

2. That the children of such an individual are very much more often observed to have gout than are their contemporaries of more abstenious parentage.

And, if these facts are admitted, it is hard to see how we can give, I do not say an explanation, but a reasonably faithful description of gout without admitting that these children are examples of the "hereditary transmission of acquired peculiarities."

R. J. RYLE.

HONORARY DEGREE.

The meeting of the Royal University of Ireland for the conferring of degrees, was held in the Grand Hall, on the 27th of October. Among those who received degrees, *honoris causâ*, was Mr. Thomas Bryant, of this Hospital, upon whom the title of Master of Surgery was conferred. As each of the eight honorary graduates presented himself, he was warmly applauded.

We are pleased to notice that Dr. R. Moody-Ward has been appointed Physician to the Berkshire Hospital, at Reading.

Pathological Notes have unavoidably been left out this week owing to pressure of material.

PHILOSOPHIA MEDICI.

REFLECTIONS AND NOTES

By Walter Moxon.

1857 to 1869.

VI.

How one may envy those to whom it is easy to be good men! Yet, if being one to whom it is very hard, you can achieve the victory and preserve your life pure, then you are like the commander of the post of honour in the fray, and will have the greater sense of well-earned triumph: because where the fight was hot there you were placed, and there you fought well and won the victory.

Try and find out how much nobler is spirit than body, that you may leave off decking the body in false colours to attract. Attract by what is good in you so far as you come within range. Never go on unworthy principles beyond your range. Do good where your good influence can come.

I have never found out that what I have developed out in my mind is fundamentally wrong. I have found it one sided and very incomplete, and I am most thankful to those who gave me the remaining parts in the same simple spirit of enquiry as I have sought in. The other side of what you like to think is best seen from other men's standpoints; you can't carry your own standpoint in it round to the other side, and yet hold your sincerity and love and belief in your own view. To be versatile in that sense is to be insincere. If we are all true to ourselves our views will all harmonise.

The correspondence of minds, as of greater and lesser spider webs—the correspondence of bodies, probably; see how every one's word or look or gesture touches in his fellow the same chord as his fellows would in him. Did you ever see in the morning in autumn how the bushes are covered with webs bright with sparkling drops of dew? How like and how different each web to the other webs! These differences are differences in size and little accidental attachments. Such differences are there between mind and mind among men, some smaller, some greater, all corresponding. And how like the spider himself is the individual spark of self that comes running down to catch whatever comes against it. The two things are as like in purpose as in plan—the mind and web,

RASAE ASPERGILLI.

Being Shavings from the Log of Mr. L. Epispasticus, late Surgeon to the s.s. "Aspergillus."

(Continued).

My reader is supposed to be by no means an average man; in fact (I hasten to prevent misconception), very far above the average. He is not only of great intellect, perceiving the value of chips that appear worthless to the vulgar, even as a Ruskin perceives effects in Turner greater than Turner's self; but even of a keen and delicate humour, perceiving the subtil flavour of jokes that be non-extant for perusers of a grosser kind; he is *haud minima pars mei*, supplying my own failings, and casting over the dry shavings of this veracious narrative the mingled moonlight of his philosophical scrutiny, and the warmer tints of æsthetically-inebriated approbation. Hence he will be readily prepared to allow the resemblance of my last chapter, containing the famous Huddlestone anecdote, to a section prepared by some arduous but fanciful pathologist, supposed to illustrate *Desquamative* Nephritis. Whether it was the Printer's Devil,* always appealed to in these cases, not so much because there is not any possibility of his functions and education permitting him to perform such a prank, as because the Luciferous appellation of him soundeth well as an Apostrophe; or whether it was the ululic acumen of an intending critical but fatedly-floundering Editor,† Proof-Reader, or Whatnot—a hanging Whatnot i-fakens—or to whatever cause due, or to the interference of whomsoever, Perdition take him for a blighted ovum! For even as my "desquamative" renal section without its tubal cells, as the Axis without its Universe, or as an American without a spittoon, so appeared my anecdote—with the point left out. The question upon which the whole of the trial hung, on which the point, the *sal* and flavour of the story depended, was the question, last-to-be-inserted before the counsel objected, and Huddlestone sat down,

"*Did he say anything to you?*"

For it was whether what he *said* might be received in evidence, which was the subject of controversy; it was what he did say, which settled, in nine brief words, the trial. He said,

"*My God, I have set the stage on fire!*"

And I felt inclined to set something on fire myself.

Tang, tang, tang, tang, tang, tang!

TANG, TANG, TANG, TANG, TANG, TANG!

Tang, tang, tang, tang, tang, tang!

Oouooouooouoo

officer vice-presided; the passengers—and among them that anomaly the doctor—were placed practically anywhere. While we are getting toward Gibraltar, I may as well describe a dinner once and for all. Our table is placed in the grand saloon, on the starboard side; on one side is a long form, against the deck-cabin wall, on the other a row of reversible chairs. Two oil lamps, pendent from the deck, overhung the table; wooden guards surround it to prevent the dishes and forks rolling off, for we are in the Bay of Biscay. The table is fairly well filled, and the *menu* includes, as we are only a few days from port, roast beef and mutton, fowls, fish, pigeon pie, and other concoctions. Conversation is at first fragmentary, and emanates chiefly from the skipper.

"Did you see that P. and O. this afternoon, Mr. Bollison?" to the chief officer.

"Yes, sir. Think it must be the *Ganges*."

"No, I don't think it was the *Ganges*. She had a high water-mark, like the *Simla*."

"The *Simla* hasn't got the same lee bobstays that this boat had, and the spanking boom is fixed more aft of the jigger."

"Then it's the *Brahma-Pootra*," says the skipper, authoritatively. "She has the middle trunnions spliced on to the lee scuppers."

After this interesting nautical discussion, the captain asks the man out of focus if he saw it.

"Oh! yaas vir haf it très bien at ge-lookt. It vas vary great och fine. Bote I am not zo gote at ze Inglish; I prefare mieux a parler ze Francais oder ze Deutche."

Dutchman No. 2 could also speak French, he said, fluently, and German. He would heroically begin floundering in English, limp into French, wriggle into German, and finally explode into Dutch, thus:—

"Vil you haf la bonté de paper mir der was heizt ap Liewenhoek awalnyk weenixoom."

Of course he got it at once.

The man out of focus pursued a safer plan. After steadily and patiently absorbing everything that passed before him, he would say at the end with satisfaction, "Ach! Gott! is dere som more?"

When Madame appeared, her silvery chuckle enlivened proceedings. She also had a very fine twist; and, it was reported, dined oftener downstairs than with us, in order to be able to eat, in private, that normal allowance of fifteen pounds which refinement forbade her to consume in public.

Occasionally the skipper or mate inveigled me into an abstract discussion, or the elucidation of crude first principles; but the conclusions arrived at were generally so perplexing as to make them venture only upon that ground when they had a very strong case to begin with.

"You would, I believe," said the mate one day, "argue a dog's hind leg off;" a result which I showed him, by the thesis and antithesis concerning the divisibility of matter in Kant's Antinomy in the "Critique," was not so preposterous as was supposed, inasmuch as *there being never any connexion between the dog and his hind leg, there was no necessity for an argument to prove it was off.*

(To be continued.)

PASTEUR'S TREATMENT OF HYDROPHOBIA.

The following conclusions were drawn from a series of experiments conducted by Mr. Victor Horsley on behalf of the committee appointed to enquire into the subject in April, 1886:—

1. That the virus of rabies may certainly be obtained from the spinal cords of rabbits and other animals that have died of that disease.

2. That, thus obtained, the virus may be transmitted by inoculation through a succession of animals without any essential alteration in the nature, though there may be some modifications of the form, of the disease produced by it.

3. That, in transmission through rabbits the disease is rendered more intense; both the period of incubation and the duration of life after the appearance of symtoms of infection being shortened.

4. That, in different cases, the disease may be manifested either in the form called dumb or paralytic rabies which is usual in rabbits, or in the more active form seen in dogs *(rage des rues)*; or in forms intermediate between, or combining, both of these, but that in all it is true rabies.

5. The period of incubation and the intensity of the symptoms may vary according to the method in which the virus is introduced, the age and strength of the animal, and some other circumstances; but, however variable in its intensity, the essential characters of the disease are still maintained.

[The report of the Commission, from which the above is an extract, giving reasons in favour of the efficiency of the proposed treatment, may be read in the *Practitioner* for September, 1887.]

Passim.

A very pleasant incident occurred at the recent meeting of the Physical Society. Surgeon Major Ince, an old Guy's man of thirty years ago, addressed those present in the course of the debate and was received with great enthusiasm. He congratulated the Society on having made great progress in all respects since the days when he had been a regular attendant at its meetings. He said that it gave him great pleasure to renew his acquaintance with the Hospital on such an auspicious occasion. We can assure him that the pleasure was heartily reciprocated by his hearers. The meeting was in every way most successful, and the attendance was good. There were many speakers, and the debate never flagged for an instant. Mr. Thistle may be congratulated upon having chosen a most interesting subject, and he dealt with it in a comprehensive and masterly style. His occasional sallies into the region of sarcasm, and a certain spirit of dry humour which pervaded the whole paper rendered it all the more attractive, and kept his audience entertained from first to last.

We have accorded praise where praise was due. Now for a few words of remonstrance which we consider no less justifiable. At the end of the meeting speakers were twice requested to aid our efforts to furnish a good report of the proceedings by sending in a *brief epitome* of their remarks. Those who may find themselves inadequately reported have only themselves to blame, for to this reiterated appeal only *three* of the seventeen speakers have at the present time responded. We have endeavoured (at the expense of some time and trouble) to remedy this neglect; with what result may be seen in another column. Gentlemen should really reflect that division of labour is a sound principle, and should display a little more *esprit-de-corps* in such matters and endeavour to assist those who are working on their behalf.

We are glad to inform our readers that the organization of a photographic committee in connection with the Physical Society, which has been advocated in these columns, is in a fair way to be realized. At a recent meeting of the presidents some suggestions made by Mr. Evershed were read, and after a vote of thanks had been accorded him, two of the presidents were appointed to combine with him in an endeavour to place the enterprise upon a working basis. Any photographers willing to assist are invited to communicate with the Editor or Mr. Evershed, and to ascertain the date of the meeting which will shortly be held to consider the project.

In the editorial columns of his popular scientific journal (*Knowledge*) Mr. R. A. Proctor has been betrayed into the following significant ejaculation:—"How much more might be done if the public would give one tithe of the support to a magazine relating to science which they will give to a magazine incorporating sensation stories by tenth-rate novelists, few, save the proprietors and publishers of scientific magazines can guess. Every month's issue of a magazine like this involves a sacrifice of time, labour, and money, entirely inconsistent with the sound old saying that 'the labourer is worthy of his hire.'" Sad, but true! The attitude of the general public of to-day towards science, is a phenomenon which might well excite even bitterer and more cynical comment than that which we have quoted above. "*Give, give!*" is the perpetual cry, "but beware that you ask nothing in return. You shall teach us, if you will, how to travel swiftly, to produce plenteously, to live luxuriously, but we will not submit to be taught by you how we are to conduct our personal affairs. We don't want to be taught cleanliness, or the necessity of sobriety. We prefer to remain unvaccinated, at the risk of spreading a loathsome disease to our neighbours, and we are quite content to take

our chance of extermination, as the result of neglecting what you are pleased to term the 'laws of survival.'"

A SHORT time ago the "literary" evening papers were inundated with discursive articles upon the higher or mystical attributes of the Human Nose—the index-feature of Destiny. An advertising surgeon had undertaken to turn out noses to order, of any desired pattern, and the whole social fabric was shaken to its foundations by the audacious proposal, which was considered as no less than an attempt to controvert the eternal laws of Fate. It was enough to make *Hafen Slawkenbergius*, that eminent exponent of the principles of Nasal Philosophy, turn in his grave. We confess, that we ourselves are by no means free from a certain leaven of superstitious awe, when we approach this subject, which at all times has exercised a curious fascination over the human mind.

HERE, for instance, is a legend of the early days of plastic operations, which might well give pause to the most daring reformer of the principles which underlie the mysterious science of physiognomy:—"A certain inhabitant of *Bruxels*, in a combat had his nose mowed off and addressed himself to *Tagliacozzus*, a famous *Chirurgeon*, living at *Bononia*, that he might procure a new one: and when he feared the incision of his owne arme, he hired a *Porter* to admit it, out of whose arme, having first given the reward agreed upon, at length he dig'd a new nose. About 13 months after his returne to his owne countrey, on a suddaine the engrafted nose grew cold, putrefied, and, within few dayes, dropt off. To those of his friends, that were curious in the exploration of this unexpected misfortune, it was discovered, that the Porter expired, near about the same punctilio of time, wherein the nose grew frigid and cadaverous."

Hospital News.

INTERESTING CASES IN MEDICAL WARDS.

8 Philip - Jaundice with Pyrexia.
11 ,, Diver's Paralysis.
14 ,, Ulcerative Endocarditis.
33 ,, Pulmonary Embolism. (?)
15 Stephen—Thoracic Aneurysm.
20 ,, Syphilis; Lardaceous disease.
29 ,, Enlarged spleen and liver.
35 ,, Severe Anæmia.
39 ,, Aneurysm. Recurrent Paralysis.
27 ,, Malignant of Abdomen.
6 & 12 ,, Senile Diabetes.
30 & 42 ,, Typhoid.
8 Mary—Endocarditis. Infarction of liver and spleen after delivery.

INTERESTING CASES IN SURGICAL WARDS.

9 Lydia—Ulcer on leg.
13 Martha—Renal Calculus.
12 Job—Hæmaturia. (?) Renal Lithotomy.
15 ,, Epithelioma of tongue.
1 Dorcas—Tubercular abscesses.
5 ,, Ulcer of foot.
6 Naaman—Articular Ostitis of Humerus.
11 ,, Articular Ostitis of Femur.
21 Luke—(?) Ostitis of upper end of Humerus.

THE MOXON MEMORIAL.

A Meeting of the Committee was held at the College of Physicians, on the 1st inst.—Sir William Jenner in the chair. The Treasurer, Mr. Clement Lucas, stated that the subscriptions amounted to £643 8s. 6d., and the expenses incurred to £32 11s. 8d., leaving for disposal a sum of £610 16s. 10d. It was proposed by Sir Dyce Duckworth that £105 should be devoted to the erection of a suitable memorial at Guy's Hospital. It was proposed by Dr. Pavy, and seconded by Mr. Durham, that the remainder (about £500) should be offered to the College of Physicians to found a Moxon Medal. It was further suggested that the medal should be conferred every third year for distinguished merit in clinical observation and research, whether in medicine or surgery. These resolutions were unanimously carried. After a vote of thanks to the president the proceedings terminated.

Physical Society.

HINTS ON CLIMATE.

[*Abstract of a Paper read before the Society by Mr. Thistle, on October 3rd.*]

Object of the paper to point out the conditions that must be taken into account before deciding to send patients abroad for sake of climate. Also to enumerate and describe chief characters of places best qualified to be used as health resorts, especially for phthisis.

Physical condition of Sufferer—At what stages of the disease are you justified in sending patient abroad. Cases quoted.

Mental condition—Despondency, unwillingness to leave home and friends, unfitness to cope with new surroundings, inability to form new friendships, contra-indicate "transportation."

Financial condition — Patient must be sufficiently wealthy to afford to lead idle life with all comforts in adopted country.

To decide on these points in patient's character *consultation necessary with family Doctor*, and in choice of country, reference should be made to his fitness for certain forms of employment and his prospect of obtaining it in the new home. Cases quoted to show evil results of neglect of these considerations. Physicians usually ignorant of the state from time to time of such "resorts," which are (as young countries) particularly liable to change. Ignorant also of districts in those countries to which they should send patients. They send vaguely "*to Australia*," forgetting extent of continent, variety of climate, &c, *Voyage* to be considered: *steamer or "long sea."* Choose in every case for patient, guided by his character, &c. *Dangers* of voyage: excessive sickness, cold, ships go farther south in "easting" than steamers, heat (? becalmed on the line), food not so good on ship as steamer, passengers fewer, calls at no ports en route, more monotonous. *Hopes* of voyage: rest, change, variety, &c. *Half the good results in so-called hopeless cases due to voyage.* Above considerations necessary, if such results are to be hoped for. Something too in choice of cabin, e.g. in Red Sea (not so dreadful as supposed), avoid boilers and sunny side, but avoid them in taking ticket.

In order to make suitable choice of health resort, as nearly as possible "personal" knowledge of characteristics of country needed. Statistics or reports of agents-general are worthless. Hygrometers, thermometers, &c. equally so. Heat is more bearable in one place than another. Change prescribed to be considered in comparison with patient's original home, e.g. North or South countryman. Climate recommended: those of Madeira, Teneriffe, Malta, Algiers, Egypt, voyage between Aden and Bombay (from October to May) with, say, a month in Seychelles islands, or long voyage to New Zealand, two months there, and return to escape an English winter.

For permanent resorts—South Africa, especially Free State; Natal (avoiding the coast district), certain parts of Cape Colony, &c., chief dangers being bad water supply and fall of temperature at sunset.

Australia: part recommended, Riverina district, the Australian health resort.

New Zealand: Wellington, Hawke's Bay (avoid Napier) Nelson, country lying between Temaru and Oamaru.

Tasmania: North part of the island.

North America: West Coast of California, Oregon.

Of South America, the reader hoped others would speak, especially of the districts of the La Plata and Buenos Ayres, feeling sure that they were doomed to play an important part in the history of the next half century, but, being ignorant of them personally, could give no description of their climate.

Mr. RICKETTS could not criticise Mr. Thistle's very interesting paper. He felt that a medical man besides being a physiologist, pathologist, anatomist, &c., must be a financial and geographical expert if he would conform to the rules laid down in this treatise.

Mr. ROBERTSON thought that the influence of climate depended on altitude. He desired to know the opinion of the reader on the subject.

Mr. VICARS, after remarking that Mr. Thistle's advice to medical men was "when you have got a patient, send him away as far as possible," proceeded to discuss the climate of England. For centuries people seemed unable to find out what it really was. History showed that the Ancient Britons were under the impression it was a warm, not to say tropical, climate. Queen Boadicea with a petticoat of blue paint bore out this conclusion. Centuries later the general impression seemed to be our climate was a cold one, judging by an authoritative account of Queen Elizabeth's fur-lined night gown. At the present time opinions seemed to differ. The sight of a "dresser" in a thin alpaca coat in the colonnade on a day when the speaker was shivering in an overcoat, together with a humorous account of warming houses, were considered as sufficient proofs of this.

Mr. WHITE complained that the medical curriculum was already more than sufficiently cumbersome. Were we expected to make the grand tour in addition to our other requirements ?

Mr. COLCLOUGH related cases illustrative of the benefit derived from a change of climate in the treatment of disease. He would like to know more of the influence of such treatment on other diseases, such as rheumatism, kidney and liver complaint, &c. Mr. Thistle had dealt exclusively with the treatment of lung disease by such methods.

Mr. WYATT-SMITH said that Florida already rivalled California as a resort for phthisical patients. He described the climate, and mentioned the probable influence of the Gulf Stream and of other conditions. He pointed out that Buenos Ayres itself is a most unhealthy place, but the neighbourhood is healthy and pleasant.

Mr. KITCHING mentioned the high altitude treatment. He recommended a voyage to the Cape or to Madeira, but deprecated the practice of sending people vaguely to a large Continent like South Africa, without special directions.

Surgeon-Major INCE, whose remarks were received with great applause, stated that it was more than thirty years since he had occupied the seat he now did at the meetings of the Physical Society. He looked back to those meetings with intense pleasure. He was exceedingly pleased with the paper read by Mr. Thistle, and congratulated the Society on the immense progress that it had made, both in the character of the papers and in the brilliancy and style of the discussion, since the time in which he took an active part in it. He wished to impress upon the members of the Society the very great advantage it was to them, and pointed out to them the importance of arguing, the habit of speaking before one's fellow men, not only with accuracy of reasoning, but with graceful fluent delivery. It had given him very great pleasure to feel himself back among the members of the old Physical Society once again.

Mr. AINSWORTH wished to know whether sending patients to a healthy resort did not tend to render the place unhealthy by the propagation of bacilli.

Mr. MAXWELL discussed the influence of the change of the direction of the Gulf Stream on the English climate.

Mr. R. E. WILLIAMS referred to an experiment of Dr. Debus, which all had seen at Chemical Lecture, where a pellet of phosphorus burst into a glow when the atmosphere around it was rarified, and suggested that since the tissues were relieved of a uniform, and considerable pressure at high altitude (the 5000 ft. height of Davas Platz, meaning a decrease of nearly one and a half pounds on the square inch), metabolism might be increased, and thus healthy nutrition and elimination of waste products accelerated.

Mr. DURHAM mentioned experiments bearing on the effects of high and low pressure on the flow of blood through the pulmonary vessels.

Mr. BRADDON (speaking from the upper benches) said: If the effects of the high altitude treatment of Phthisis resembled in any way those he was suffering, from that fairly elevated and particularly dense atmosphere, a patient who tried it might shut up his umbrella at once. He had intended to pose as an ancient debater and paternal critic at this debate, but had been cut out by the pleasant and benevolent old gentleman who had just spoken. Looking back over the debate there were some things he had failed to understand. One gentleman had referred to Boadicea in a petticoat of "blue paint," or was it blue ointment? and had invited them to follow him, from Boadicea's petticoat to the ermine-lined cloak of Elizabeth. That seemed to him (the speaker) a difficult, if not delicate, and dangerous proceeding. Tea kettles had been mentioned also—presumably in connection with high altitude treatment. He would refer them to Mr. Twain's observations on barometer soups (in the "Tramp Abroad"), as equally pertinent. However, he was glad to note that the later contributors to the debate had struck a higher, if a less humorous, vein of discussion; and had lifted them to a more airy and scientific a level. One speaker considered the question of the statical changes in pulmonary alveoli; another invited them to wade out with him into the blue waters of the everlasting Gulf Stream, and consider whether the Panama Canal would convert England into icebergs. But none of the speakers seemed to him to touch the real questions at issue. Mr. Thistle's paper had covered very wide ground, and was full of many interesting observations. But they were too generalized; he wished Mr. Thistle had been able to reduce, to some principle, the confused conditions which recommended one climate or another; or that he had been able to give us some scientific data of comparison, such as wet and dry bulb readings in different climes (not that the speaker understood what wet and dry bulbs were, or that the practitioner would be any the wiser perhaps), but they would help on to a principle. Mr. Thistle seem to steer clear of such data. His productions resembled those of his botanical congener—both downy, roving and intangible. Perhaps equally tough, and armed against aggression. It was easy to pick out this place and the other; he might select the Antarctic zone, or "Greenland's icy mountains." But why? A certain medical officer accompanied Sir John Franklin's last Polar expedition but one, while suffering from the last stage of Phthisis. Yet he returned well. Cold evidently

did good. So did dryness, whether hot or cold. Where snow was, the air was, by that evidence, dry. Another thing was exercise. Those physicians were not so much to blame who packed their patients anywhere off for a voyage. It did good by making them shift for themselves. They got unwonted exercise, unwonted appetites, and so better general metabolism. Half the effects of "change of climate" were due to this. Horace's aphorism would read as well, and more truly,—

"Coelum non *salutem* mutant qui trans mare currunt."

— There were various schools of treatment. This was the Sceptical School. They believed that if people would only do at home as they do abroad, they would feel well just as soon; and a sea breeze might be manufactured just as well by evaporating a little salt water in a frying pan. However, he was glad that such an important subject had been so well discussed. Mr. Thistle had treated it most ably and extensively. If they might not gather grapes of thorns, they had at least got most valuable fruit from *Mr. Thistle.*

Mr. WHITBY asked for some general principle to guide us in the selection of different climates for different stages of disease. He did not share Mr. Braddon's scepticism as to the effects of climatic conditions, and thought that the attempt to construct an artificial sea-breeze, as described by that gentleman, seemed unlikely to prove beneficial.

Mr. GILL advocated the method adopted hy Dr. Blake, of California, of camping out in the mountains.

Dr. SHAW regretted that Mr. Thistle had not begun at the end of his paper and worked back, so as to lay still more stress on the necessity of carefully considering the circumstances of the case before sending patients on a long voyage. He alluded to the difficulty of obtaining home comforts on board ships, and the depressing effect of the presence of other invalids. He thought that we must not expect any other criterion than the results of experience to aid us in choosing a particular locality.

Mr. CAMPBELL (from the chair), described the climate of Peru, and its advantages as a health resort.

Mr. THISTLE then briefly replied, and the proceedings terminated with a vote of thanks to him for his excellent paper.

The next meeting will be held on the 15th inst., when Mr. Mothersole will read a paper on "Pathogenesis and Protection."

A STEP IN THE RIGHT DIRECTION.—We are glad to notice that it is intended to run trains by electricity on the Teign Valley Railway. The river Teign is to supply the motive power. It is much to be hoped that the experiment may prove a success, and we should be glad if it could be extended to the Underground lines.

Sport.

RUGBY FOOTBALL.

GUY'S *v.* CLAPHAM ROVERS, at Wandsworth, on Saturday, October 29. The great improvement shown at Croydon on the previous Saturday was more than maintained by our men, and we won, hands down, by 2 goals and 2 tries to nil. Evans, again, was invaluable, and scored after a very clever run; Bryant played consistently well all through and was responsible for one of the tries; another fell to Prime, who played better in this match than he has since the end of the season before last. The fourth try was got by Steele, by one of the smartest pieces of following up that we have ever seen. The way he went after that ball—and his reward—ought to be a lesson to every footballer who saw it. These four, and Allport, were, perhaps, the most conspicuous, but every member of the team played up well.

Team: S. S. Wallis, C. J. Prime, H. L. Evans, F. M. Russell, H. G. Steele, J. H. Bryant, A. D. Fripp (capt.), A. Allport, N. Instone, W. G. Rogers, Wilks, Culmer, H. Rygate, H. Joslen, and W. C, Swayne.

GUY'S *v.* MIDDLESEX WANDERERS, at Richmond, on Saturday, November 5th. A very fast, even, friendly and enjoyable game, resulted in a win for us by 2 goals and 2 tries to 1 goal and 2 tries. They scored first, but this only nettled our men, and thenceforward, though the game was fairly won, we had them pretty well in hand. Evans and Prime scored twice each, the latter kicking the goals. We were without the services of Allport and Fawcett—the latter being laid up with sore throat—whilst the former most unfortunately broke a metacarpal bone in one of the United Hospital trial matches. Despite these serious losses our men continue to improve—they played up in a way that elicited a large amount of enthusiasm from the many Guy's men who now make a point of following the team about. Prime's return to his old form is a matter for congratulation, both for himself and for the Hospital. Wallis and Evans, as usual, were almost faultless. Steele and Bryant were again very good, but they were more than once completely beaten by Rotherham, one of the opposing halves.

Rygate is a valuable addition to the forwards—he is an honest worker and a most effective collar. Wilks will make a good forward, but must learn not to kick so hard. As a whole the forwards are now a very fair pack. Their weakest points are collaring and following and backing up.

Team: S. S. Wallis, C. J. Prime, F. M. Russell, H. L. Evans, H. G. Steele, J. H. Bryant, A. D. Fripp (capt.), R. M. H. Randell, A. Friend, A. N. Otber, N. Instone, W. G. Rogers, H. Wilks, H. Rygate, W. C. Swayne.

In our next number will be an account of our "Northern Tour." On Friday, November 18th our team will leave St. Pancras at 3 p.m., and arrive at Bradford at 8. On Saturday we play Bradford, and on Monday journey on to Wakefield to play Wakefield Trinity, returning by mail train, which arrives in London at 5 a.m. on Tuesday, November 22nd. Any men who care to accompany our team on this somewhat daring little expedition can obtain inclusive railway tickets at 19s. 10d. per head.

The team is not yet definitely chosen, but will probably consist of S. S. Wallis, W. G. Mitchell, C. J. Prime, H. L. Evans, H. G. Steele, H. J. Bryant, A. D. Fripp (capt.), A. Allport, J. Fawcett, R. M. H. Randell, H. B. Marriott, and four out of the following six—W. Bligh, H. Rygate, H. Wilks, N. Instone, W. G. Rogers, and G. M. Pratt.

Their task is a heavy one, but we are proud of their pluck in undertaking it, and we shall be more than proud if they come back with less than two lickings. The team is as nearly as possible representative of the present strength of Guy's. It contains several very good men, especially behind, and the great improvement in dash and combination shown of late justify us in anticipating that they will be able to give their powerful opponents a pretty tough fight.

GUY'S II. *v.* RICHMOND.—At the Old Deer Park, on Saturday, October 29th, and resulted in a draw, neither side scoring.

GUY'S II. *v.* MIDDLESEX WANDERERS II.—At Blackheath, on Saturday, November 5th, we were beaten by a dropped goal to nil. The game was very even—if anything slightly in our favour throughout.

ASSOCIATION.

GUY'S *v.* OLD FORRESTERS.—Played at Snaresbrook on Saturday, October 29th. We were poorly represented, and were beaten by 6 goals to 0.

Team: C. J. Girling (goal), C. G. Roberts and G. W. A. Mitchell (backs), J. H. Jewell, A. T. Brown, and O. J. Bradley (half-backs), J. L. Roberts and A. N. Otber (left) E. Hunt (centre), and W. K. Steele and C. M. Fleury (right), forwards.

GUY'S *v.* HIGHGATE SCHOOL.—Twelve aside. Played at Highgate on Wednesday, 20th October, resulting in a win for us by 6 goals to 2. Goals:—Holman 3, Winslow 1, Wilks and Bradley 1 each. Holman, Bradley and Wilks all played well for us.

Team: H. W. Webber, goal; G. W. Mitchell and C. G. Roberts, backs; E. J. D. Mitchell (Capt.), W. K. Steele and A. N. Otber, half-backs; H. J. Holman, O. J. Bradles (R), W. Winslow, H. Wilks (L), (forwards); E. Hunt and W. Bligh (centres).

GUY'S *v.* LONDON CALEDONIANS.—Played at Lee, on Saturday, November 5th, resulting in a win for the Caledonians by 6 goals to 1.

Team: H. W. Webber, goal; E. Moss and G. W. A. Mitchell, backs; E. J. D. Mitchell (Capt.), S. Woodhams and C. G, Roberts, half-backs; A. T. Brown and E. Hunt (R.), O. J. Bradley (centre), F. H. Brown and J, L. Roberts (L.), forwards.

IN the first round of the Surrey Cup ties, we, the holders, are drawn against Dulwich Football Club. The date is not yet settled. They are, perhaps, our most formidable rivals; at any rate we ought, if we beat them, to get into the final round, and then, of course, we shall retain our hold on the Cup for another year, for it is a well-known fact that Guy's have never yet been in the final of any Cup ties—cricket or football—without coming out victorious. But we shall soon fall from our present proud position among Association Clubs unless the members co-operate to enable the executive to play a representative team in each match. The Rugby team are rapidly improving, simply because they are sparing no trouble to learn a good combined game. The Association team must follow suit—and at once—or it will be too late.

CRICKET.

The Autumn General Meeting of the Guy's Cricket Club was held on Monday, October 31st, A. E. Durham, Esq., in the chair. The accounts of last season were passed. Mr. W. J. Scott was presented with the bat for the best average, and Mr. W. G. Mitchell with Mr. Durham's presentation ball for the best bowler. It was unanimously resolved that an effort should be made to raise enough money to purchase the Inter-Hospital Cup, which we have now won for four years in succession; and officers for the ensuing season were elected as follows:—

President, Mr. A. E. Durham, F.R.C.S., etc.
Captain, Mr. F. Colclough.
Vice-Captain, Mr. W. G. Featherstone.
Hon. Sec., Mr. Busteed.
Treasurer, Mr. A. D. Fripp.

COMFORTABLE and quiet APARTMENTS, 35s. per week, including board; bath-room and lavatory, fitted with hot and cold water. Busses and trains from London Bridge; cars from St. George's Church.—Mrs. Chapman, 1, St. John's Terrace, Hemberton Road, Mayflower Road, Clapham.

TO INVALIDS.—A married Physician, of considerable experience and success in the treatment of disease, is desirous of receiving a Lady or Gentleman in the hope of cure: his residence is detached and pleasantly situate on gravel soil, about 7 miles west of Paddington. Terms 3 guineas per week. Address M.D. Fairholme, Hanwell, W.

Guy's Hospital Gazette,
NOVEMBER 26, 1887.

CASE OF INTESTINAL OBSTRUCTION—L. COLOTOMY—DEATH.

George Hatcher, 62, drayman, admitted into Clinical, September 20, 1887, under Dr. Pitt, with symptoms of intestinal obstruction.

Family History.—Father died of cancer of cheek at 66. Otherwise unimportant. No trace of syphilis.

Present Illness.—He was quite well up to September 16. Had had no trouble in passing his motions, nor had he noticed that they were smaller than normal. No blood passed. He slipped off a cart on the 16th, knocking his knee, but otherwise did not hurt himself. His bowels were opened on the following morning.

Later on in the morning he had pains in different parts of his abdomen, and he noticed that his abdomen was enlarging.

Took Ol Ricini ʒss., which had no effect.

First sick on the 18th, and up to the morning of admission had brought up everything in the shape of food that he had taken.

On 18th and 19th had two enemata, which brought away very little. Abdomen has gradually become more distended since the 17th. Pain continued until the morning of admission, when it became much less marked. Pulse irregular, intermitting every now and again, hard.

On Admission.—P. 118, R. 36, T. 98.

Patient does not look very ill; is fairly free from pain, but, occasionally, has a slight shooting pain in region of cæcum and umbilical region. Abdomen is very distended, especially in hypogastric and lumbar regions. The abdominal wall is rigid; percussion note uniform all over. No growth can be felt per rectum. Deep palpation of the sigmoid region is impossible, on account of the distension. By the stethoscope it was thought that a distended coil—most probably large intestine—could be traced up into both hypochondriac regions, and transversely across the epigastric region. Urine, 1022, acid; slight ring of albumen. Was ordered—

Ext. Bellad, ¼ gr.
Ext. Opii, ¼ gr., in pil. 3 tiis horis.
Milk Oss., Ice, by mouth.

On account of albumen in urine and of pulse, the pill was ordered every sixth hour, and a pill of Ext. Bellad, ¼ gr., every third hour, and the patient was fed wholly by nutrient enemata.

21st.—Tongue clean; patient has not been sick since admission. Pulse 100; still very irregular. Patient free from pain.

Mr. Golding Bird saw patient, and said there was no evidence to show to where the obstruction was, but the probabilities were that it was growth in the sigmoid. He advised acupuncture, preparatory to further operation.

3.30 p.m. Acupuncture was performed.

First, a small trocar and canula was inserted in the middle line, about 4½in. below xiphoid cartilage, with no effect.

Secondly, in left linea semilunaris, at the level of umbilicus, a small amount of gas escaped, followed by a little fluid fæces. The canula was then pushed a little further in, and some blood-stained serous fluid escaped.

Ext. Bellad, ¼ gr.
Ext. Opii, ¼ gr., in pil. every 3 hours.

22nd.—Pulse 96, still very irregular—feebler. Patient has not slept at all during the night, and has been very restless, wandering, and imagining he has seen things. Dr. Pitt thought the belladonna might account for this. Abdomen is very tense. Has not been sick, and seems free from pain. Urine 1,025, acid; no albumen.

4.30. Patient was put under chloroform, and Mr. Golding Bird performed left lumbar colotomy. After dividing lumbar fascia, and tearing through the subperitoneal fat, the large intestine, distended with air, protruded into the wound. Very little gas and fæces escaped.

Abdomen still remained distended.

Patient was put to bed, and Supp. Opii, ½ gr., given. Almost immediately he became very restless, and wanted to get out of bed. Was with difficulty restrained. Became delirious, and talked to invisible people.

7.30. Inj. Morph. Hypoderm, ¼ gr., which seemed to quiet him. He lay still, and did not want to get out of bed. T. 101.

Later in the evening he became more delirious, and, when seen by Dr. Pitt, had marked delirium tremens.

Each time on changing the dressings there was found that very little fæces had escaped.

23rd.—The delirium continued, and he died at 6 a.m., the abdomen remaining distended.

Post-mortem.—On opening the abdomen, all the small intestines were found greatly distended. The transverse colon was seen crossing the epigastric region, nearly empty. On removing the intestines (small) to the left, a large, considerably distended knuckle of large intestine, composed chiefly of cæcum, was exposed in right lumbar and iliac regions.

On further examination a small band was noticed, which constricted the ascending colon, and so obstructed it; but, apparently, as there were no signs of vascular interference near it, did not cause strangulation of the bowel. This band connected the edge of the liver, near the right side, to the front and right abdominal wall. On removing the liver and large intestine from the body, it was seen that the vermiform appendix had become adherent to the under-surface of liver near its edge and to the right side, probably from some old inflammation about the appendix. There were, also, strong adhesions between this part of the liver and the cæcum, near the vermiform appendix. The band which constricted the colon was small, easily separated, and of the size of moderately strong twine. Had it been possible to diagnose this condition it could probably have been relieved by operation.

The distended coil was injected and dark, but showed no signs of strangulation or gangrene. Surface smooth.

There was no recent peritonitis.

Kidneys, apparently healthy to the naked eye. The microscope revealed signs of commencing interstitial nephritis.

Physical Society.

At a Meeting of the Physical Society, held on Thursday, November 15th, Mr. P. N. Randall in the Chair, Mr. MOTHERSOLE read a Paper entitled

PATHOGENESIS AND PROTECTION.

He began by calling attention to the importance of the history of the lower orders of life in the study of medicine. A large number of diseases due to animal or vegetable parasites; micro-organisms now assumed to be the cause of the acute specific diseases; object of paper to consider the origin of these diseases and the means employed for mitigating their virulence.

Old views concerning the mode of origin of contagious diseases: (1) always as the result of infection; (2) sometimes spontaneous. Neither of these views altogether tenable. Possibility of innocent microbes becoming pathogenic by evolution under altered conditions. Absence of direct experimental evidence. View that organisms unable to harm a healthy individual may acquire such power by growth in a morbid system favourable to their development. Evidence in favour of this view in septicæmia, hospital gangrene, urethritis, puerperal fever, relapsing fever, typhus.

Diseases occurring in man as the result of infection from the lower animals, rabies, anthrax, scarlet fever. Possibility of new contagious diseases arising in the future; probability more in favour of existing ones dying out.

One attack of a contagious disease affords immunity against recurrence. Theories to explain this fact.

(1). Consumption of the specific pabulum essential for the growth of the organism.

(2). Production by the organism of some material destructive to itself.

(3). Tolerance of the tissues when accustomed to the presence of the organism.

(4). Resistance of the tissues increased by training in contact with the organism.

Similar problems in connection with tolerance of drugs equally inexplicable.

Practical value of knowledge of pathogenesis comprises the greater part of Hygiene. Importance of studying the diseases of the lower animals. Rôle of protection in practical medicine. Acute specific diseases considered from two points of view—(1) to what extent one attack protects against recurrence; (2) how far prophylactic induction is likely to be of use. In all the acute specific diseases one attack has a protective influence; this is denied by some writers in the case of ague and erysipelas; reasons for disputing their dictum. Dr. Fehleisen's researches on erysipelas. Protective production employed either as a general measure upon the whole population, or more discriminately upon individuals exposed to risk of contagion. Conditions essential to the success of either method and suitability of different diseases for their application.

Modes of securing protection:—

A. Vaccination or employment of a virus modified by various methods.

(1). Transmission through another animal, as in small-pox; insusceptibility of animal denotes soil unfavourable to growth.

(2). Exposure to oxygen with a limited supply of food. Pasteur on chicken-cholera, anthrax and hydrophobia; attenuation of organisms by semi-starvation. Chauveau on the action of compressed oxygen.

(3). Contact with antiseptics. Chamberland and Roux: action of carbolic acid and potassium bichromate on anthrax bacillus. Bacteria modified by various methods have different degrees of relative virulence for different animals. Risk of infection in syphilis lessened by administration of mercury and iodides.

(4). Exposure to high temperatures. Toussaint, Pasteur and Chauveau on the anthrax bacillus.

B. Inoculation with products of natural disease. How related to vaccination? Differs from disease by natural infection, probably only on account of site of primary lesion being less favourable to growth of organism. What takes place during incubation period?

Practical results obtained by protective methods in Chabert's disease, swine-plague, anthrax, hydrophobia, small-pox, yellow-fever. Is there any hope that the principle may be extended to the mitigation of other diseases? Cholera, the only one likely to be much benefited in this way. Means of diminishing individual susceptibility other than vaccination or inoculation. Infection depends on relative strength of individual and micro-organism; antagonism of white corpuscles to microbes; merits of leucocytes ignored in physiological works; function of lymphatic glands in preventing general infection by the aid of their garrisons of leucocytes; importance of maintaining the strength of the white corpuscles by proper regulation of their supplies.

Mr. THISTLE, in replying, congratulated Mr. Mothersole on his paper. He regretted that he was able to find so little to criticise in it. Dr. Saunders had pointed out in his blue book, that every outbreak of typhoid fever was preceded by illness among the animals. He asked, how far will our treatment of disease be affected by our knowledge of the germs that produce it? He could not understand how it was that scarlet fever and other diseases produce septicæmia in women.

Mr. A. E. NORBURN referred to the fact that sometimes very few, at other times numerous bacilli are required to produce disease, the period of incubation depending on the number required and their rate of multiplication. In from 16 to 24 hours after inoculation anthrax bacilli are found in a local swelling, and a few hours afterwards in the blood; but tubercle bacilli are not usully found in the viscera for three or four weeks. The question arises, whether the virus resides in the organisms themselves or in their products; owing to the very variable number present in fatal cases, it would appear probable that the source of mischief is in the substances produced by the activity of the bacilli. It is to be noted that organisms fatal to some species are harmless to others. Thus anthrax affects the herbivora and man, but has no injurious effect in the carnivora and the pig; the swine plague bacillus kills rabbits and mice, but not man, birds or herbivora. Nevertheless, broth made from the tissues of any of these animals will nourish either organism. We must, therefore, suppose that there is some difference in the chemical constitution of the living tissues which determines the destruction or development of the bacilli.

Mr. CAMPBELL said that he considered that although most observers are agreed in denying the possibility of spontaneous generation, yet some men of authority, as Dr. Charlton Bastian, still hold the view, and even Professor Huxley considers that it may have once occurred. With regard to scarlet fever, though Dr. Klein has confidently affirmed that the microbe of scarlet fever had been found; yet Dr. Klein had apparently shown that this was on insufficient ground, as the cow disease, in which they have also been found, was shown not to have given rise to the disease. From these and other considerations, it is evident that only a guarded opinion must be formed as to the presence of microbes in many of the diseases in which they are said to occur. Again, it is at least an open question as to whether the presence of microbes means that they have caused the disease, or that they have only taken up their position as soon as

a suitable nest has been provided for them. In infective osteo-myelitis there is considerable difficulty in working out the life history of the micrococcus causing it, although it is singularly easy to cultivate the germ outside the body. Instances such as this lend considerable support to the view that one germ can within the body change into a germ of another kind and with a different effect upon the system.

Mr. PARKIN suggested that too much attention had been paid by Mr. Mothersole to micro-organisms as one cause only of disease. He then drew attention to our scanty knowledge of the causation of disease generally, and discussed the present treatment by the so-called germicides. He thought that the number of diseases was even tending to increase rather than decrease.

Mr. STARLING observed that Metschnikoff had already shewn that the difference between the susceptibilities of various animals to the virus of anthrax, &c., depends on a difference in the bacillus-devouring capacities of their leucocytes.

Mr. BREMNER thought it possible that the puerperal fever micrococcus and that of scarlet fever, &c., were the same germ altered by circumstances.

Mr. KITCHING gave a short account of the simple method of inoculation practised in South Africa for lung sickness which affects so widely the cattle. He related the clinical symptoms and pathology of the disease. Material for inoculation is prepared by soaking a piece of leather in the diseased lung. This is inserted into an incision made at the root of the animal's tail. Occasionally the tail sloughs off, a matter of considerable importance to the animal.

Mr. MOTHERSOLE, in replying, said that Mr. Thistle's account of typhoid arising in cattle was quite in accordance with his views. Our knowledge of micro-organisms was useful if only to afford the most rational theory for explaining all the known facts; and our treatment of these specific diseases is more likely to be successful and scientific if we know their ultimate cause. The relation of scarlet to puerperal fever was a point much disputed among gynœcologists. Mr. Norburn had raised an interesting point with respect to the importance of the dose of organisms taken in any case. Watson Cheyne had made elaborate researches in this direction, and established the fact that in animals not very susceptible to a disease, a certain number of organisms was necessary to produce any effect. Thus while one anthrax bacillus sufficed to kill a rabbit, in Algerian sheep a small number of bacilli caused only a local affection, a large number brought on the general disease. Opinions differed as to whether the symptoms of the disease were due to the organism itself, the zyme or ferment produced by it, or the products of the fermentation. He had not studied the writings of Charlton Bastian, but was aware that even now individuals could be found who declared that the ferment was a product, and not the cause of fermentation. It was hardly the time, or the place, to prove how everything did, or did not, arise out of nothing once upon a time. He fully believed in the possibility of a bacterium changing its nature.

NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

(Continued.)

HEART DISEASE.

EFFECTS ON OTHER ORGANS.

1. Embolic effects.
2. Forward effects.
3. Backward effects.

I. EMBOLIC EFFECTS.

The effects of an embolus depend entirely on the process going on in the site from which it was derived.

Simple embolism blocks arteries.

Ulcerative embolism sets up ulceration.

Gangrenous embolism sets up gangrene.

N.B.—An embolus invariably becomes impacted at the bifurcation of the artery.

Brain.

Simple embolism, very rarely a wedge-shaped infarct, such as will be described hereafter, is seen. Generally a form of softening is the result.

In brain, kidney, spleen and lung, the arteries do not anastomose. Now, in these viscera, if an artery be blocked by an embolus, the effect is not anæmia of the embolic area, but hyperæmia and hæmorrhage.

This is explained in Wilks and Moxon as follows:—"When an artery is blocked not only is the blood cut off from the area or tissue which it supplies, but also from the artery itself. The result of this will be malnutrition of the arterial walls beyond the embolus, and passive dilatation. This creates negative pressure, and the blood rushes back from the veins into the capillaries and with such force as to rupture the weakened arteries and cause hæmorrhage."

In the brain the usual effect is *red softening*. The tissue becomes soft and diffluent; red in colour from hæmorrhage and the nerve tissue is spoilt, so that only a granular débris with more or less broken up nerve-fibres and cells are found, with many compound *granule cells*. These are large cells crowded with granules. They are the only pathognomonic evidence of softening of nerve tissue.

The arteries usually blocked in the brain are the *left middle cerebral* and the *basilic*. Dr. Fagge does not confirm the usual assertion about the left middle cerebral. 20 cases of right and 21 cases of left were collected by him from Guy's P. M. Reports.

In red softening as described, the extravasated blood ultimately undergoes decolorisation, and the result is a yellow ochrey color. That is one variety of *yellow softening*.

Lung.

The effect is pulmonary apoplexy. Variable sized wedge-shaped extravasations of blood with the base to the surface and the artery leading to such patches blocked by embolism. This is always a late result of heart disease, and the infarct does not go through the changes of decolorisation, atrophy, and so on, as in the case of the kidney and spleen.

N.B.—Above refers to simple embolus. Ulcerative or gangrenous embolus would set up local ulceration or gangrene.

Liver and Intestine.

Embolism of the hepatic artery on account of the frequent anastomoses never leads to infarcts. Embolism of a mesenteric artery leads to acute enteritis, probably because the blood from the veins runs back into the embolised area and leads to hyperæmia.

Spleen and Kidney.

As in the lungs there are two important facts in the vascular supply.

(*a*) The arteries do not anastomose.

(*b*) The veins have not any valves.

When an artery is blocked by a simple embolism the first effect is, of course, a momentary anæmia. Of this we have no *post-mortem* evidences; but, for the reason already given, the blood rushes back from the veins through the capillaries into the embolic areas with such force as to cause hæmorrhage. The result is a wedge-shaped patch with its base to the surface of the organ; of a dark purple colour like a recent extravasation. The subsequent series of changes consists in alteration and absorbtion of the blood coloring matter, so that it becomes at first brown-yellow, and then there is atrophy and contraction of the tissue in the embolised area, and ultimately a fibrous scar. Caseation also takes place in the wedge-shaped infarctions, and may begin certainly within 36 hours.

The above might be applied to pulmonary infarcts. But this condition in the lung occurs at the end of heart disease, and the change rarely, if ever, goes beyond the state of hæmorrhage. The converse is also true; given an infarct, the artery supplying its areas will be found to be blocked.

The above applies to simple embolism, but if the embolus is derived from a source of suppuration or gangrene the result will still be a wedge-shaped patch, which frequently sloughs, or becomes gangrenous en masse.

Embolism of Peripheral Artery.

Simple embolism. In this case the veins contain valves and the arteries anastomose; the blood, therefore, cannot return from the veins. If the anastomosis in the particular part in which the embolus is impacted is not free enough, the result is dry gangrene. Gangrene in a young person is almost invariably due to heart disease. If the embolus is suppurative or gangrenous it sets up the corresponding process in the artery in which it becomes impacted, and the result is hæmorrhage or aneurysm.

If a cerebral artery—hæmorrhage.

If a peripheral artery—false aneurysm, consisting of extravasated blood of which the sac is formed by the surrounding tissue.

But the process need not go on so far as actual hæmorrhage, but may cause inflammation of the arterial wall, consequent softening and yielding of the wall with formation of a true aneurysm.

Cerebral hæmorrhage in a young person is not invariably, but is frequently, the result of heart disease.

II. Backward Effects on Viscera.

Lung.

"Brown induration." The organs are firm and dense. On section they are dark brown in colour, more or less airless, and frequently there is coincident bronchitis. The tissue is very dense, scarcely breaking down even under extreme pressure.

Microscopically.

The first change is dilatation of the pulmonary capillaries which become enlarged and varicose. As a result of this the air cells are encroached upon, and the lung becomes comparatively airless.

Secondly, on account of the extreme pressure, the coloring matter of the blood exudes and undergoes changes producing the brown colour.

Lastly, on account of the continued hyperæmia, the connective tissue of the lung undergoes proliferation, and this process, surrounding the walls of the alveoli, renders them still more airless. The result is a lung, dark brown, extremely dense and hard, and more or less airless.

Liver.

Nutmeg Liver.—The liver is enlarged, extremely hard, and on section has the nutmeg pattern. The process is:

Firstly, dilatation of the hepatic veins.

Secondly, the pressure of the dilated veins causes atrophy of the immediately surrounding liver cells, which become white and granular.

Lastly, the peripheral cells pick out fat from the portal veins and become yellow, so that a lobule of the nutmeg liver is normally described as showing 3 zones.

Red in centre. *White* surrounding. *Yellow* at periphery.

With these changes there is an increase of the connective tissue of the portal canal, with a slight increase round the hepatic vein; indeed, it is stated by numerous authorities that heart disease is a cause of *cirrhosis of the liver*. It is, to a modified degree, but that it ever leads to the atrophic and hypertrophic cirrhosed liver is certainly not true. The heart disease is invariably fatal before such an extreme process can come about.

Kidney.

Here, again, as in the case of the liver, it is a moot point whether heart disease leads to granular kidney (cirrhosis of kidney or interstitial nephritis). The prob-

ability is that it does not, the patient dying long before such an effect can take place. In heart disease the kidneys are extremely hard and elastic; deep red in colour; and very frequently secrete albumen. No doubt cases of interstitial nephritis, with a dilated and hypertrophied heart are often met with. But these kidneys are, in all probability, examples of primary renal and secondary heart disease.

The heart in such a case will be found more or less enlarged, sometimes enormously so; all the cavities are dilated and the walls thickened; the valves are thickened and atheromatous and the orifices dilated, but there is no evidence of endocarditis—no granulations are found and there is no puckering or contraction. In fact the appearance of the heart is that of an organ overworked, all the parts of which have become hypertrophied.

N.B.—Such a condition is almost invariably met with in adult life. In fact all cardiac disease occuring in adults is generally due to renal trouble.

Systemic venous system.

The result is at first *cyanosis*, seen first at the extremities (ears, nose, fingers, toes). In chronic heart disease, the ends of the fingers become "clubbed." This is often the case in phthisis, but there is this distinction—in phthisis the nails also become incurved, in consequence of the atrophy of the fat beneath the nail. The excessive size of the ends of the fingers is due to the chronic hyperæmia.

N.B.—The most extreme cyanosis is not met with in heart disease even when it is congenital, although in the latter condition it is also very severe, but it is found in chronic bronchitis and emphysema.

The next result of heart disease is *dropsy.*

Cardiac dropsy begins in the feet and extends upwards. The genitals, if they are affected at all, are so secondarily. There is almost invariably a tinge of *jaundice.*

Renal dropsy begins in the eyelids and genitals, and the patient is markedly white.

Splenic effects.

The spleen in heart disease, not complicated with ulcerative endocarditis, is small, hard, of a dark purple colour. Considered mechanically it should be enlarged, but it is true of heart disease as of about half the cases of cirrhosis of the liver that the spleen is small, showing that the condition is not a mechanical one.

N.B.—It may be laid down as a rule that if the spleen in heart disease is enlarged, we have to deal with ulcerative endocarditis. In other words, we have to deal with the large soft spleen of pyrexia.

There may be exceptions to this rule, but they are very few.

(To be continued.)

THE AMOROUS PHOTOGRAPHER.

A Contributor who is of opinion that we have displayed too much enthusiasm on the subject of photography, sends us the following account of his own experience of the art:—

Lives there a painter who shall dare
With all his toil of thought and care,
With all his vaunted art,
Delineate that form so rare:
Pourtray those features matchless fair,
Engraven on my heart.

No! let the Sun's impartial rays,
In every varied form and phase
Upon my loved one fall:
Depict her with his wonted truth,
In all her peerless pride of youth,
Who doth my heart enthral.

Then, when we're sundered by the main,
And fated not to meet again
For many a weary year,
She may be present to my view
In lineaments as clear and true
As unto memory dear.

REM.

N.B.—We regret to state that the young lady did not approve of our friend's production. He has vowed never to take another portrait, except it be a pathological one. —Ed. G.H.G.

THE STRUGGLE BETWEEN CELLS AND THE COCCI OF ERYSIPELAS.—Metschnikoff investigated seven cases of erysipelas, of which two died. In these two cases there were numerous cocci in the cutis and in the subcutaneous tissue, and the cocci were always free and not in cells. In those cases which ended in recovery the state of matters was quite different; the inflammatory infiltration was more marked, and the leucocytes frequently contained cocci, while others contained irregular granules, and others again were empty. Only a few cocci were present between the cells. Along with these leucocytes (microphagocytes) there are also larger cells (macrophagocytes); but the latter cells did not contain any cocci, and apparently ate up the microphagocytes. In experiments on animals he found the same relation between cells and organisms; but in the case of anthrax the microphagocytes are the active destructive agents, the smaller cells apparently not taking part in the process.—WATSON CHEYNE in the *London Medical Record.*

Passim.

A VERY important event in the Hospital year is the appearance of the list which we publish in another column. We offer our heartiest congratulations to the heroes of the hour, our most sincere sympathy to those less fortunate candidates whose names are absent. It will be seen that eight out of the eleven who have passed are placed in the first division, a proportion of which Guy's men may indeed be proud. We hope that the honours' list, when it appears, may be equally satisfactory, and that, as usual, our colours will be well to the front. The number of failures, however, is this year rather large (about 50 per cent.), but only just exceeds the proportion of rejections in the examination as a whole. This suggests an observation in which, we believe, we shall have the approbation of the majority of our readers, viz., that the interval between the dates at which the final M.B. is held is far too long. Failure in such a severe and comprehensive ordeal is no disgrace, and would be far easier to bear but for the necessity of waiting twelve months for another attempt. The examination should take place at least twice a year. But Universities are proverbially slow in realising the needs of their supporters.

EIGHTY-FIVE (or thereabout), is the number of patriotic Guy's men who last week enrolled themselves as special constables, and were duly sworn to defend the hearths and homes of the Metropolis for a period of two calendar months. As yet they have had no opportunity of displaying their prowess to an admiring world, for on Sunday they spent most of the day at a police station in a state of masterly inactivity. Doubtless, however, the moral influence which from that locality they exerted upon the would-be rioters was immense, and they may well be awarded the gratitude of the community. Meanwhile it is possible that more active service may be required of them ere long, and we are well assured that they will be equal to the occasion.

OUR football team is to be congratulated on the enterprise and energy which prompted its recent expedition to the far north, and upon having made a very vigorous fight of it against two proverbially strong opponents. There are some defeats which are in themselves a victory, and it is creditable that we were not badly beaten in either match, while in the second the scoring was very nearly equal.

ON Wednesday (the 24th inst.) a meeting of those interested in the formation of a Photographic Committee in connection with the Physical Society, was held. Mr. Golding-Bird kindly presided, and with his assistance provisional rules were framed for the subsequent consideration of the Presidents. We intend to publish these rules later on, when they have been finally adopted. Meanwhile any suggestions from those of our readers who have anything to say, will be welcome. There is every reason to hope that the section will soon be in working order, and we believe that the Treasurer has signified his approval of the scheme and his willingness to assist its promoters.

NOTICE TO SUBSCRIBERS.

Gentlemen are reminded that No. 24 of the GAZETTE will be the last issue included under this year's subscription. It is hoped that all our present subscribers will continue to support us during the ensuing year. Our circulation at present is nearly four hundred—a large number being sold to Old Guy's men— and we are glad to report that our financial condition is entirely satisfactory. We hope, however, that there will be no falling off in this respect, but rather an increased prosperity during 1888, and we shall consider the continued patronage of our present friends as the real test of the success of our enterprise during the past year. Particulars as to the terms of subscription will be found on the third page of the wrapper.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

SIR—Will you spare me space to introduce a subject which much interests junior students—the regulations for the Pre. Sci. and 1st. M.B. Lond. They are unfair, unjust, and a most efficient means of checking the desire in a student to do his utmost and his best. This is a serious charge to bring against a University which has done so much to elevate and advance education.

The number of candidates for these examinations has gradually increased, yet last year the number of men gaining honours suddenly decreased. Were the candidates of a lower standard, and less efficient than usual? Is it not probable that those who would have been in the Honours division are lost in the pass list, because they were too wise to throw away time, and their chances of gaining third and fourth years' prizes.

Why do we hear on all sides from men who have gained Scholarships and Prizes quite sufficient to prove their capability—that they do not entertain the idea of going in for Honours? These men will work for the Pass only; there is no reason for exerting themselves, and there is no object in reading advanced text books; and the probabilities are they will do less, and derive less benefit from their work than the man who has had to work hard to get a Pass. Under the old regulations no such limit existed; men worked and did their best, knowing that if they were worthy they would obtain Honours, or at least be credited with a Pass for the honest endeavour they had made.

There are old Guy's men, the pride of the School, who obtained distinction. Are we not indignant at the thought that some of these men under such regulations might have been passed by without the Honours they deserved; and such men will go up year after year without distinction until these regulations are rescinded.

A notice was posted in the Hospital stating that the University had taken into consideration the strain on the student during the examinations, that the new regulations worked so well for Pre. Sci. candidates, that they were to be extended to the 1st M.B.; when the students were dissatisfied and the examiners alone benefitted, in that their work was considerably curtailed by the diminished number of papers to correct. True, it used to be a long strain, but during the Honours exam. the candidate had the satisfaction of knowing that he had accomplished something, his time and energies were not all wasted—he had passed, and that sustained him somewhat. If he found himself physically unfit for the Honours, though he had prepared for them, he was not bound to present himself. In the new regulations it is difficult to see the improvements; a long period between Papers and Practical, during which there is every opportunity of a reaction setting in—the student being liberated from hard reading—and of becoming unfit for the examination when it recommences. If he is in for Honours, all is uncertainty, and he has the satisfaction of knowing that he will be quite rejected, though many of his fellows, with less courage and less knowledge, will be granted a Pass.

Though frequently discussed, I have not heard one word in favour of these regulations. Surely, if the student does not mind the extra labour of preparing and submitting himself to two examinations, it is a very ungracious act for an examining body to say it takes too much time—or, whatever their reason, we will not examine your work. Clearly, it is the duty of the examiners to find out diligently and carefully the men most worthy of Honours, granting they have shown sufficient knowledge in other subjects. If this is their duty, the last examinations demonstrate very clearly—especially to those acquainted with the students—that the regulations are a complete failure. Some of the best men, and those who under other regulations would have gained Honours, are found in the Pass list.

That such an injustice should be sanctioned is a disgrace to the University. I trust that something may be done to impress upon them the wisdom of rescinding these regulations immediately, and of giving honour to whom honour is due. Cannot the unanimous voice of our teachers effect this? It must be very disheartening to them to see the students they have educated thus treated.—I am, &c., A STUDENT.

HEREDITY.

SIR—In support of Dr. Ryle's contention, may I quote three cases:—A man had his eye hurt at a "wine"; a second by the tag of a football; a third (an old Guy's man) by a pointed dart. Their children all had the eye corresponding to the one injured in the father smaller than the other. Was this transmission of a lesion or of a predisposition?—I am, &c., TRIVIATOR.

[A letter from E. H. S., replying to Dr. Ryle's arguments in our last, was too late for insertion, and will appear next time.—ED.]

DEPOSITS IN URINE.

Twice lately I have been taken in by uratic deposits that do no seem to be frequently described, and it would perhaps be worth while to draw the attention of ward clerks to these cases in order that they may be on the look out for similar and other deposits of a misleading character. The present time is of course suitable for the examination of deposited urates. In both cases there was a dense white deposit in the specimen glass, rather too white and heavy for mucus. Under the microscope the first showed definite corpuseles about the size of white blood cells, with a narrow, circular, clear outer zone. The body of the cell was full of definite granular matter, which could in some cases be seen escaping through the apparent envelope. In the second case the urates took the form of very well formed casts, and were generally taken for very perfect granular casts. A few clear smooth quite transparent casts of the same size were found, and these were believed by Dr. Goodhart to be the envelopes in which the casts had escaped from the tubes. The casts broke up very readily like the globules, leaving a deposit of granular urates. In the first case the urine was free from albumen, in the second it contained about $\frac{1}{12}$, and came from a large granular kidney. It seems likely that other definitely formed urates are to be found by examining a large number of specimens, and I suppose the GAZETTE will be willing to record them. S. W. M.

A NEW MEANS OF DETECTING ALCOHOLIC AND SIMULATED STATES OF COMA.—Dr. Von Wedekind, writing in the *New York Medical Record*, claims a sure method of detecting malingerous hysterics and alcoholic patients, which he has practised successfully. He says that by simply pressing on the supraorbital notches with a steadily-increasing force, one may, with a certainty of success, detect a malingerer, bring an unconscious alcoholic to his senses, and thus differentiate on the spot between alcoholic and other comas, cause cessation of hysterical convulsions, and in many instances quiet alcoholic delirium. The best way of applying this test is :—When the patient is in the recumbent position, the physician, standing at the head of the cot, or kneeling when the patient is on the ground, fixes the tips of the thumbs over the supraorbital notches, as above described, never minding the occasional yell or struggle, presses steadily, gradually increasing the force, and in half a minute or a minute the result is accomplished.—*London Medical Record.*

THE POETRY OF ATTENUATION.

A Correspondent of the *New York Record* wrote as follows :—

Little drops of water,
Little grains of milk,
Make the little doctors
Of homœopathic ilk.

A Massachusetts correspondent supplemented this by adding these verses :—

Precious little bottles
Sitting in a row,
Filled with potent liquid
Known as H_2O.

A drop of Mother Tincture,
Humble though it be,
Makes the tenth dilution
When poured into the sea.

Of all the gulls delusive,
The greatest is to know
Where lies the healing power
In a drop of H_2O.

Lond. Med. Rec.

PHILOSOPHIA MEDICI.

REFLECTIONS AND NOTES

By WALTER MOXON.

1857 to 1869.

VII.

It is a pity we cannot see the whole fabric of each others' minds by a sort of photography, but if we did, the interest of *life in time* would go. "We live and learn," and learning is the life of the soul.

We are between two polar forces, but we *are not those forces*. Conscious polarity is mind.

It is a certain responsibility to fill much of the world with even your body. There may be so large a spot (blot), due to your presence.

A test of mind-power is the sciences. How much world would a mathematician's store make? How little compared with the philosopher's store, especially the physical philosopher's! How dry and thirsty and barren a world the correlationist's store!

Valetudo is with the Latins both health and ill-health; which suggests that unconscious health is the only health that is good; or that conscious health is bad health.

The man who, possessed of a better judgment, follows continually his worse impulses, will at last find these latter to have set his countenance and figure to their pattern, and the expression of their sentiments; and then, Oh woe! his better self will be behind a mask, like the fair-spirited ladies in the Arabian Nights, who had been changed to fawns or fish, or like Ulysses' friends in the bodies of the swine. If we see prevailing in another what we have conquered in ourselves, we pity or despise him according to whether we are good or bad. If we see in another prevailing, what we cannot hope to reach, we either respect or scorn him according to whether we are good men or bad.

In our worship of liberty, let us settle this question, looking at it in all the love created by the adored sound. If all the youth of the nation grow up in personal freedom and self dependence they come to have no reliance apart from their own special judgment. We have to beware of partial aspects of truth, and is not liberty a partial aspect? On its other side, liberty is responsibility, and want of rule, want of guidance. Does not a time come to us all when we feel a leaning to what we see better in other natures? Such a leaning as the author of "Ecce Homo" so beautifully defines Faith to be. Not a rational conviction of their greater correctness, but a sense of their greater goodness, a sense of nobility that may be adverse to the mere reasoned conviction: as when we must obey the impulse of charity to some suffering wretch in spite of the logically proved wisdom of letting the helpless "go to the wall." Such a loving sympathy-tendency to bend us to what is better than ourselves, we feel and cherish—it is good for us. But if a hard-cased liberty has made the personal judgment our supreme guide, then we cannot yield a generous trust to the nature of others. Only through the door of self-convincing logic can faith come—and what a door is that! How cramped and narrow and chilling! And what a faith it is that can come through it! How cold and damp and lightless! A mind trained only to receive through logic is strange for ever to all the world of feeling; but 'tis feeling that gives substance to human nature. Without feeling and preference and faith and hope we are but meaningless reflections of the earth and its produce. Feeling and faith are very life. The substance of the things hoped for in which our very existence is a forward motion. Let us see the folly of limiting our nature to the product of a personal judgment, lest the far better good that is without the best of us in collective humanity escape us entirely, and we become barren of everything that could benefit others, and therefore receive nothing, as we have nothing to return.

That your esteem may be worth having is surely enough reason for choice of good before evil.

Hospital News.

INTERESTING CASES IN MEDICAL WARDS.

49 Mary—Right Hemiplegia and Aphasia.
48 ,, Malignant Ascites.
45 ,, Albuminuric Retinitis.
18 ,, Jaundice (Gall Stones?).
21 ,, ? Hydronephrosis.
15 ,, Erythema Bullosum.
24 ,, ? Syphilitic Disease of Lungs.
3 Philip—Retinal Hæmorrhages.
5 ,, Perityphlitis.
14 ,, Ulcerative Endocarditis. Tricuspid murmur.
20 Stephen—Phthisis and Cirrhosis of Liver.
33 ,, Optic Atrophy.

INTERESTING CASES IN SURGICAL WARDS.

14 Lydia—Ulcer on Leg.
12 Martha—Thyroid Tumour.
1 ,, Facial Paralysis. Aural Polypus.
18 ,, Tumour of Breast.
11 Naaman—Articular ostitis of Femur.
19 Luke—Chronic Synovitis. Articular ostitis of Femur.
14 ,, Syphilitic Laryngitis.
11 Charity—Ulcers on Foot.

LONDON UNIVERSITY.

Final M.B.

The following are the names of the successful candidates in the recent examination:—

First Division.

W. L. Braddon. W. N. Risdon.
C. Caldecott. C. F. Routh.
W. F. Clarke. A. H. Tubby.
J. E. Nevins. H. E. Vincent.

Second Division.

T. Fisher. F. Heatherley.
W. J. B. Watson.

EXAMINATIONS FOR L.R.C.P.

MEDICINE.

1. Describe the appearance of the chest at rest and in movement—

(*a*) In a patient the subject of emphysema.

(*b*) In a patient the subject of advanced phthisis in both lungs.

2. Write an account of the results of the post-mortem examination of a typical case of mitral regurgitant disease of the heart, and trace the relation of the morbid changes found in the various organs to the primary lesion of the cardiac valve.

3. Give an account of the symptoms when a patient having angular curvature of the spine becomes paralysed and what signs would indicate that the disease will probably end fatally. How would you manage such a case?

4. Mention the conditions in which albumen may be found in the urine. What diagnostic value is to be attached to its presence under various circumstances?

5. Describe the symptoms of laryngismus stridulus in an infant. For what may it be mistaken, and what is its appropriate treatment?

6. What measures would you adopt for the disinfection of a room in which a case of scarlatina, small pox, or diphtheria had occurred?

MIDWIFERY AND DISEASES OF WOMEN.

1. Describe those healthy secretions of the internal and external genital organs which may be directly observed.

2. Give the signs of threatening abortion at the third month, with the differential diagnosis (*a*) when preventible, (*b*) when inevitable; and the treatment in each case.

3. Give the mechanism of a case of breech-presentation, with the sacrum of the fœtus behind and to the right.

4. Write notes of a typical case of phlegmasia dolens, giving the treatment.

5. Describe the signs and symptoms characteristic of chronic ovaritis.

6. A woman, æt. 40, multipara, complains of having had occasional floodings since her last confinement, six months ago. Describe the conditions which you may find on examination.

Sport.

RUGBY FOOTBALL.

Having easily defeated the Saracens at Walthamstow on the previous Saturday, by 2 goals and 4 tries to *nil*, our team journeyed up to Bradford on Friday, Nov. 18th. Things did not look promising when we started from the Hospital in a real genuine London fog, but we soon shook down into three card parties in a comfortable saloon, and the five hours' journey passed quickly enough. As we neared Bradford a crowd collected round our carriage at every stoppage, to get a look at the team, and to inform us that we'd "be beat to-morrow"—at least so it was interpreted by one of our number who had been up in those parts before and knew the language. Bradford station was simply thronged, and a crowd quite a hundred yards long accompanied us up to the Talbot Hotel, which we made our headquarters.

It froze hard that night, and when we went up to inspect the ground next morning, we found it—well, certainly quite unfit for football. Hawcridge, the Bradford captain, left the question to us, and so, not quite seeing the fun of coming 200 miles for nothing, we decided to play if the fog lifted. The fog did lift to a certain extent, and we played. Between 6,000 and 7,000 people turned up—not bad, considering the frost and the fog, and the fact that no definite announcement was posted in the town till nearly 1 p.m.

Our team consisted of:—S. S. Wallis (back), W. G Mitchell (left), H. L. Evans (centre), and C. J. Prime (right) (three-quarter sides), H. G. Steel and J. H. Bryant (half sides); A. D. Fripp (captain); J. Fawcett, N. Instone, H. B. Simpson, H. B. Rygate, J. D. Smith, W. Bligh, R. M. H. Randell, and G. M. Pratt (forwards).

Allport, most unfortunately, was unable to resume his place in the team, so acted as umpire. Well, we started off capitally; after the first five minutes we got into our opponents' 25, and before long made them touch down. The kick out was followed by play in neutral ground, and then some very good combined play by our men enabled us to invade again, and after we had pinned them for several minutes, Mitchell got possession, and scored a try for us by a clever run right through the Bradford team. He took the kick (about four yards from the touch line), but could not land a goal. On restarting we continued to have the best of it. "Their passing at times," says the *Yorkshire Athletic News*, "was so admirably executed that it extracted many a hearty and spontaneous cheer from the crowd." And we ought to have scored again when the forwards once made a grand

rush, and the ball changing hands about eight or ten times, we got to within a few feet of the line; but their defence was too good, and the half-time whistle sounded. Having changed ends and restarted, we soon found our opponents fairly on their mettle. They had completely changed their forward game from fast and loose to tight. We had not anticipated this move, and in the next few scrimmages they walked through us, but Mitchell and Wallis put in some good kicks, and we pulled ourselves together again and once more assumed the aggressive.

About now Mitchell made a drop at goal, which was charged down and rebounded right past our three-quarters. The Bradford pack came with a rush, and were only stopped when dangerously near our line. And this was the turning point of the match. Rawson Robertshaw, the international middle three-quarter, had been getting better and better every minute, and was henceforth altogether too much for our men. His brother, standing in the Pavilion, said he never saw him play better—time after time he completely baffled us. Our men, too, were done up; the game had been fast and hard—now it went dead against us, and one, two, three, four, five times did the Yorkshiremen get in, among the yells of 7,000 Yorkshire lads. 2 goals and 3 tries to 1 try is a good sound licking—but it is no disgrace to Guy's to have that scored against them by Bradford; on the contrary, we count it a great credit that they more than held their own for 40 minutes and got a try, which is more than Blackheath can boast. We must not forget to mention Steele and Bryant. Their game at half was splendid, and very largely accounts for our good show in the first half.

After the match the Bradford Club gave us a dinner and a very jolly evening, which began with a smoking concert, and then moved on into the Conservative Club. They (or rather some of them—viz, the Robertshaws) carried on their hospitality on Sunday by driving us over to Ilkley on a four-in-hand. Then we had a brisk walk for a couple of hours, then dinner, a twelve mile drive home and early to bed. On Monday morning we bade a most touching farewell to the many friends we had made in Bradford, and buckling our saloon on to the back of a passing train we travelled to Wakefield. Again the elements were unfavourable for football. The ground was hard underneath and frightfully greasy on the surface, and from half-way you could only just distinguish the goal posts. We played, however, and a rattling good game it was. Our team was the same as on Saturday, so that Rogers, who was taken as a reserve, had an idle time of it; our opponents, too, had a representative team, the strongest, they say, they have played this season, and as out of 14 matches against Bradford, Wakefield Trinity have won 11 and lost only 3, we were on the look out for a heavy score against us. In this we were, happily, disappointed. Our men played up *simply magnificently*. A goal to a try was the record, and though an impartial judge would certainly say that we had the worst of the game, still all the luck was against us. Three or four times we were within an ace of scoring, and were only prevented by such bad luck as the ball touching the umpire. Wakefield on the other hand, though they kept us during a large part of the game on the defensive were baulked simply and purely by the determined way in which our fellows pulled together. The tackling was at times very resolute, Wallis, Rygate, Simpson and Randell being about the most conspicious in this part of the game. Wallis played a magnificent game, time after time he saved our lives in noble style. Mitchell, though suffering from an injured knee, was simply invaluable, and again scored after a very clever run. Evans in the middle played just the plucky game that was wanted. Of the play of the forwards as a whole it would be impossible to speak too highly. They let themselves go, and played the game right out. It would be hard to say who deserved most praise among them—they all worked right nobly—if each man had not done his very utmost, the score would have been very different. But though we wish to praise every member of the team, we must put at the very top of the tree our two halves. Steele's play on several occasions fairly astonished not only the spectators but also his own men, who have so often seen him do good things. At tackling, dribbling and stopping rushes he surpassed himself, while Bryant's cool and calculated passes, and his excellent backing up, often enabled us to assume and keep on the aggressive.

Without doubt, we may say that this, our first Football tour, was an unqualified success, both socially and from a Football point of view. The Yorkshire teams and the Yorkshire papers swear to both—and if any reader does not think that old Guy's did nobly in scoring 2 tries to 6 against two such powerful teams—well, he certainly can't know much of what we are talking about—

FOOTBALL.

TO INVALIDS.—A married Physician, of considerable experience and success in the treatment of disease, is desirous of receiving a Lady or Gentleman in the hope of cure: his residence is detached and pleasantly situate on gravel soil, about 7 miles west of Paddington. Terms 3 guineas per week. Address M.D. Fairholme, Hanwell, W.

Guy's Hospital Gazette,

DECEMBER 10, 1887.

THE PHOTOGRAPHIC COMMITTEE OF THE PHYSICAL SOCIETY.

The rules have been drawn up and passed by the Treasurer of the Hospital and Presidents of the Physical Society, and the Committee will commence its duties as soon as the one or two necessary arrangements are made in the Studio and Dark Room.

The rules governing this Committee are briefly as follows:—

"The Committee consists of six working members, and two Presidents of the Society (who are ex-officio members); these are elected annually by the Presidents of the Society in October. Any photographer wishing to be elected must exhibit specimens of his work at the October Soirée of the Physical Society. When elected he will be at liberty to use the Hospital apparatus and appliances other than plates, chemicals, and dishes, which he provides for himself, and keeps in a locker in the Studio provided for the purpose. The cases suitable for photography will be entered on slates kept in the Medical and Surgical Registrars' Rooms, and a member desiring to photograph any case so entered will place his initials against it, and will then be held responsible that the case he has so initialed shall be photographed. Two unmounted copies of each photograph must be presented, one to the Museum, and one to the Reports, and the case photographed must not be published without the permission of the Physician or Surgeon to whom the case belongs. The Studio will be open only to the members of the Committee, who will each be provided with a key to the Studio door."

The following have been chosen as the first Committee:—Messrs. H. J. Campbell and C. J. Whitby, ex-officio members. Messrs. W. G. Brett, A. R. F. Eversheld, F. E. Heatherley, W. E. Kelbe, and A. Norman, working members. And it is hoped that the Committee will have the co-operation of the Staff, so that all suitable and interesting cases may be permanently recorded pictorially, and not lost as in the dim past.

A CASE OF TYPHOID FEVER.

Thrombosis of Right Iliac Veins—Embolism of Pulmonary Artery—Pulmonary Infarcts.

W. S., 35, was admitted Nov. 5th, 1887, for typhoid fever. There was a fortnight's history of headache, sleeplessness, anorexia, looseness of bowels, with, later on, shivering fits.

On admission.—Patient is a strong well-nourished man; presents typical typhoid spots; gurgling in right iliac fossa; no adventitious sounds in chest; T. 100·4; R. 24; P. 104.

Nov. 7th. Fresh crop of spots.

Nov. 10th. Fresh crop of spots. Bowels opened for first time. No splenic enlargement.

Nov. 21st. A little blood in motions passed.

Dec. 1st. Is making satisfactory progress. Spots have faded. No bronchitis, or pneumonia. Temperature has fallen. Beef tea ordered for first time. At 7 p.m. had beef tea, and slept quietly. At midnight he awoke, seemed well, but complained of pain in his back. Seemed cheerful and had beef tea ʒ v. Shortly after, nurse hearing him snoring loudly, went to him and found him pale with cold hands and abdomen. House-Physician sent for, but patient died before his arrival.

Autopsy.—Old adhesions were found at the base of right lung. Numerous ecchymoses over surface of both lungs. A small hæmorrhagic infarct at apex of left lower lobe. A large hæmorrhage into right base, with much solid lung tissue round it. Remainder of lungs healthy, except for edges and upper lobes, which were all very emphysematous. On opening the

pulmonary artery just above the valves, a very large embolus was discovered lodged at its bifurcation, and extending along either branch to the secondary divisions in the root of lung. It was a little adherent just at the bifurcation, but over the greater part of the artery it was quite free, and could be easily dislodged.

The right femoral vein was thrombosed, the thrombus extending for several inches down the thigh, but it was not followed to its lowest point. Upwards it extended to the vena cava, and then for a short distance down the left common iliac. The thrombus was adherent only opposite Poupart's ligament, the channel being nowhere completely occluded, accounting for the absence of œdema of right leg. The embolus was probably detached from the thrombus at the bifurcation of the vena cava, for here the thrombus presented an irregular fractured end.

In the ileum were numerous healing typhoid ulcers, several presenting a punched out appearance, as though the slough had but recently separated. Serous surface quite healthy. The spleen was large and soft.

WHY HE WAS A VEGETARIAN.

[Extract from an oration recently delivered before the "Amalgamated Association for the Final Suppression of Individual Judgment."]

"Before I became a Vegetarian I had suffered from rheumatism for years. I had consulted the *Leading Doctors* of Great Britain without avail (Ah, and no wonder!). I had varicose veins on both legs (murmurs), and was covered with eczema to that extent that I didn't know my own father (great sensation)—I mean that my own father didn't know me. But, gentlemen, I was one day recommended to try Vegetarianism. What is the result? I have lost my rheumatism (sensation), thrown away my elastic stockings (cheers), and am now without spot or blemish from head to foot (loud and prolonged applause)."

The orator went on, amid signs of great enthusiasm, to offer to run upstairs three steps at a time against anyone present (not taken), and concluded by remarking that if there were anyone of his own size and weight in the room willing to stand up alongside of him, he would kick his hat off.

At this period the herbivorous champion was removed by his friends, and our reporter seized the opportunity of beating a hasty retreat.

Correspondence.

To the Editor of Guy's Hospital Gazette.

DETECTING ALCOHOLIC AND SIMULATED STATES OF COMA.

Sir,—In your November number you quote Dr. Von Wedekind's method of supraorbital pressure. May I instance a device initiated by the first Monson Hills (known to the elder Guyites) equally effective and equally harmless. A man was brought in on a stretcher by the police in a state of supposed complete insensibility. He was at once warded. Something in his appearance gave Hill a suspicion he was shamming. He followed him into the ward, sat by his bedside with some remarks of sympathy; but he proceeded to fillip the tip of his nose about once in a second. This he continued for a few minutes, when he detected a slight movement, which encouraged him to continue, when, after a few more moments, he was amused though not surprised at seeing the man jump out of bed exclaiming "D——d if I can stand this," and then run down the ward out of the Hospital. Fortunately, for appearances sake, he had not been undressed.—Yours, IN MEM.

HEREDITY.

Sir,—On no other subject, perhaps, is the unbiassed criticism of a Medical Practitioner so valuable as on the question of Heredity, and especially in its relation to gout. Hence I was very glad to see Dr. Ryle's name at the bottom of a long letter on the subject, but must own that I was very disappointed after perusing it to find that he added little or nothing to our knowledge of the subject.

But not that alone, unfortunately. For the general effect of Dr. Ryle's letter was, I am afraid, to obscure the real question at issue. Very curiously, but I think undoubtedly, he has failed to appreciate the position I took up in my article. This was, perhaps, due to a defective statement of my case. But yet, I should have imagined that any one, who had first perused Mr. Beddard's paper (to which, of course, mine was only intended as a sort of footnote), would have been able to gather my meaning plainly enough. What Dr. Ryle supposes my views to be, I cannot imagine. But that he supposes they are something extremely absurd is indicated both by the ease with which he turns them

inside out, and by a certain tone of superiority which (naturally, perhaps, under the circumstances) pervades his letter.

The only part of his letter which raises a point of any importance, is when he re-affirms what I had already stated in my paper, that all authorities on gout agree that a hereditary predisposition can be created by drinking and eating too much.

Let me consider first, however, the former part of his letter, where he ingeniously and plausibly convicts me of reasoning in a circle. He describes me as saying that nervous inheritance is explained by predisposition. I said nothing of the kind. I took the case of a man who had a blow on the head, and then developed insanity, and begot insane children; and I said the reason the man went mad was because he was, before the blow, predisposed to insanity. If he had been an average man, he would not have gone mad. The very fact of his becoming so, showed the existence of a previous instability of nervous equilibrium. His predisposition to insanity was the result of some taint in one of the germ-plasmata from which he was produced (his father's or his mother's), this taint being either an inherited one or an accidental or spontaneous variation. I do not pretend to explain the causation of spontaneous variations. I do not know whether Weismann has offered an explanation of them. But certainly Darwin has acknowledged that at present we cannot understand the reason why they should arise. This was my contention then: That the real cause of the man's insanity was a taint in the parental germ-plasma, and not the blow on the head.

Again, this taint in the parental germ-plasma, by the doctrine of the continuity of the germ-plasma, will be present in the germ-plasma of the man we are considering. And hence "the products of the development of his germ-plasma," *i.e.*, his children, will be likely to have a nervous instability likewise. But the reason they are insane is not because their father got a blow on the head, but because he has an inherited nervous taint in his germ-plasma. And what I say is, that they would have been just as likely to be insane if the blow had never been received. I repeat once more the expression Dr. Ryle quotes from my article: "The development of the individual is the index to the power of development of his germ-plasma." This is the gist of the whole matter.

Then, with regard to gout. Since reading Dr. Ryle's letter, I have looked up all the authorities on gout that I could find in our library, and must say again that I can find no evidence that too much indulgence in the pleasures of the table will set up gout in the man's descendants. I know that all authorities say that it does so—but then they never entertained the possibility of any other view, and seem to have accepted the popular idea that the sins of the fathers are visited upon the children in this as in other diseases. In fact, until recently, the idea of the hereditary transmission of acquired peculiarities was so ingrained in men's minds as an infallible truth, that no one would hesitate to explain clinical phenomena by its means, and if they came upon a fact that at first sight seemed to support it, would simply remember it as an additional proof, without troubling to enquire further into it. I must own that it is a difficult question to decide either way—first, in consequence of the defective life histories we have of the ancestors of our patients; and secondly, on account of the various factors which may continue to produce gout in a man, and complicate our calculations.

I broached the new idea to a friend of mine, who has always lived a most temperate life (a good deal more so than the average of mankind), who has always taken a fair amount of exercise, and who has had gout since he was 37. He laughed at the idea, and said he could refute it by his own case, as he had inherited his gout from his maternal grandfather, who always kept a good table and was fond of his glass of port after dinner, and had gout in consequence. His father and mother were perfectly healthy and free from gout. I then asked whether his grandfather's father or grandfather had gout, and he could not tell me—in fact, had never thought about it, although he attributed his gout to the poor old gentleman's predeliction for port wine. We have here an example of reasoning from insufficient evidence; and see how hard it is to be certain that a man really created a gouty diathesis by over-eating or drinking.

If Dr. Ryle, instead of mentioning "hundreds of well-observed cases" in a vague sort of way, would give us the records of half-a-dozen typical cases which would prove his case conclusively, I should be the first to give up Weismann's theory in its present condition. I doubt, however, whether there are six families in England whose family histories are full enough to enable us to decide the point one way or the other.

Our clinical data with regard to gout are so insufficient that they serve neither to confirm nor refute Weismann's theory, which at present is ignored by men who are in the position to correct this; and it was on this account that I introduced the subject in my article.

I read the account of Weismann's theory at the same time that I read the account of the theory of Pangenesis, two years ago, and have ever since kept them in mind, and tested all the clinical facts I came across in my reading and in the wards in the light of the two theories. Thus approaching the subject without any bias in favour of either theory, I have come to the conclusion that Weismann's explains facts much the better, and it is, it seems to me, much the more rational. And I think, if Dr. Ryle will give my arguments a fairer consideration, he will admit that my position is not so absurd as he at first supposed.—I am, &c.,

ERNEST H. STARLING.

THE FINAL M.B.

Sir,—I observed with much satisfaction your remarks on the Final M.B. As one of the rejected at the recent examination, I feel it my duty to support your suggestion that there should be two Final M.B. examinations in the year. In doing so, I have but little expectation that the change will be made at such a date as will benefit myself; but I feel so keenly, at the present moment, how costly is the delay of a whole year, and how seriously the whole future of a candidate may be affected by failure at the M.B., that I am impelled to do what little I can towards obtaining for the Undergraduates of London University so just and desirable a reform. It would mitigate very considerably the hardship unquestionably involved in many cases of failure. I desire to see the London degrees made more accessible, not by lowering the standard of examination, but by increasing as far as possible the facilities for obtaining them.

There appears to be a general agreement that the change must come sooner or later. Why, then, not sooner? There is nothing to be gained and everything to be lost by further delay. The very existence of the London University is at the present moment endangered, and the Senate should be only too glad to receive suggestions for strengthening it. There is the proposal soon to be considered by the Privy Council which will give the Colleges the power to grant a degree in Medicine, and there is the projected Teaching University. Both of these proposals will, it seems to me, affect the London University very seriously if successful; and it behoves the London University to do what it can to remove all just ground of complaint as to its examinations; for the danger of it lies, not so much in these direct attacks, as in the dissatisfaction in which these schemes have had origin, and the antagonism which has been aroused among its own Graduates and Undergraduates in consequence of the unreadiness of the Senate to appreciate the need of changes in its regulations which has long been patent to everyone except the Senate itself.

The Preliminary Science and Intermediate are now held twice a year. On what ground can the further refusal of the same boon in respect of the Final M.B. be justified? There appears to be no objection as to the principle, and the question seems to turn on the practical difficulties. But the same difficulties had to be met in dealing with the Preliminary Science and Intermediate. I will be told that the change in the Honours examination made the greater frequency possible. If, then, we are to choose which of the two arrangements we shall have, I for one would unhesitatingly declare for the greater frequency of examination coupled, though it were, with the objectionable regulation as to the Honours examinations now applied to the Preliminary Science and Intermediate. The chief difficulty appears to be the cost, which it is said will be increased. Well, sir, if that be so, I am sure the candidates will be only too glad to meet the increased expense. I believe, however, that the increase of cost would be but temporary, for the increased frequency of the Final, together with that of the Preliminary Science and Intermediate, will increase the number of those proceeding to the Final M.B. very considerably. It is, however, for the Senate to overcome these difficulties. It exists for the purpose. It is for us to press on the Senate the importance of giving this matter its immediate consideration.

The revered President of our Physical Society, on a recent occasion, advised us to leave medical politics to others. Gladly would we follow his advice. When, however, our interests do not receive that just consideration they deserve, we fail in the duty we owe to our successors, whom we in some measure represent, as well as to ourselves, and that noble University of which we shall one day be proud to be members, if we do not take steps to protect those interests and urge attention to our just and moderate requests.

In conclusion, I would suggest that a meeting of the London Undergraduates of Guy's should be held, at which resolutions might be proposed which would strengthen the hands of those members of the London University who are, I have no doubt, prepared to make representations on our behalf to the Senate; and that permission be obtained for the placing of a Petition in the Medical School Office for signature. I would also suggest that the co-operation of the London Undergraduates of other Hospitals be secured if possible.—I am, &c.,

A. S.

ACUTE OBSTRUCTION IN A HORSE.

The following case having recently come under my notice, a few notes may prove interesting:—Rufus, a fine seven-year-old chestnut horse, was taken with severe pain in the stomach at 3 a.m. Had been quite well the previous day, and done a usual afternoon's work of two hours' journey into the country. Was found by the groom at 6 a.m. in severe pain lying down and groaning. The attack had evidently begun some two or three hours before, because sounds were heard proceeding from the stable during the night, but no notice was taken of them. The animal was removed to the farrier's and bled freely. A copious enema was given, but it returned at once without affording any relief. A "ball" was given containing aloes and opium, and hot cloths applied to the belly. Subsequently a blister was applied along the inner surface of the thighs. 3 P.M.—No relief whatever; the horse is in constant agony, rolling over on its back, and drawing up the legs. The belly is swollen, but by no means tense. Has had a morphia injection (2 grs.). The pain is not paroxysmal, and the horse does not seem to get a moment's relief. Towards night the pain ceased, the animal became collapsed, dull and drowsy; and died just within 24 hours of the commencement of the attack. *Autopsy.*—On opening the belly a piece of small intestine was found strangulated. It was about 3 feet in length, and situated a short distance below the duodenum. It was black in colour, and the walls much thickened from blood extravasated into them. The stomach contained some hard dry masses of undigested food. With regard to the cause of the obstruction, the vets. were unable to enlighten us, but they felt certain that it was not due to an intussusception nor a twist (volvulus). The animal had been supplied with some new wheat straw for bedding, and it is possible that the attack was in some way due to eating this.

THE INTESTINAL ORIGIN OF CHLOROSIS.

M. Duclos, in the *Revue Générale*, considers that chlorosis is eminently a result of auto-infection, a true poisoning resulting from the retention and putrid decomposition of fecal matters in the intestine. As a rule chlorosis is preceded by and associated with constipation, but this rule is not without exception. Sometimes the poisoning takes place rapidly; the putrid decomposition may be active or the intestinal absorption may be more or less complete; and in harmony with these differences the varieties of chlorosis may be observed; even fever and endocarditis may arise as a result of such auto-infection. Everyone admits the importance of overcoming intestinal inactivity in these cases, even though they do not feel disposed to accept M. Duclos' theories.

AN OBSTETRIC ROMANCE.

By an Unsuspected Observer.

Scene: *An Examination Room, with Examiners No. 1 and No. 2, and between them a benevolent old gentleman, supposed to be a Government Commissioner: all having tea; and Candidate No. 271, with smile of hopeful expectation, seated at corner of table.*

Ex. No. 1 (*toying with fœtal skull and pelvis*)—"What's that?"

"First face."

"Put it through Pelvis."

"First we get extension, then rota ——"

"Don't talk so much; do it."

Series of pantomimic effects, during which face descends, and is delivered amid grunts of acquiescence.

Ex. (*with mouth full of bread and butter*)—"If chin not rotate, what d'ye do?"

"One should remember that the"—*sniff*—"that the chin often does rotate very late"—*loud sniff*—"if labour had lasted too long for that I ——"

"Oh! perforate, of course."

Candidate a bit groggy about the knees by this time, but still came up smiling for the next round.

"Boundaries fossa navicularis?"

Answer lost on Examiner, who is deeply interested in a remark of Benevolent One, who thinks cream in tea highly injurious.

"Eh, what?"

Answer repeated.

"Yes, of course. Why didn't you say so at first? You mustn't waste my time so. Posterior boundary vestibule?"

After two or three tentative shots, received with roars of laughter and much thigh-slapping, the unfortunate candidate was knocked out by hearing that he had better look up his anatomy at the first opportunity. 271, who appeared to be somewhat collapsed, was handed over to Examiner No. 2.

Ex. No. 2 (*giving Candidate a bird's-eye view of his back, and apparently addressing benevolent old gentleman on near side*)—"Impacted shoulder. What d'ye do?"

271 wisely assumes that this bone is thrown to him, and suggests—"Decapitate."

Grunt of approval.

Now addressing cornice in top left-hand corner—"Woman leaves home well; pain in belly, slight shiver; tumour to umbilicus. What is it?"

"One would think of Hæmatocele or Pelvic Peritonitis with matted intestines, but the data are too insuff ——"

Horrible noise from Examiner, suggestive of Cheyne-Stokes respiration, with a dash of stertor.

"Hæmatocele! Bah! Dunnow how you make that out."

"Show me the Placenta there," growled the surly one, rising to his feet and pointing to a dilapidated affair on a plate. He evidently meant business; so the unfortunate candidate made a desperate effort to rally his scattered forces.

"The Placenta, sir? Why, all this is Placenta," murmured 271, tearfully.

"I asked you to show me the *Chorion*, sir," thundered No. 2, with terrific emphasis; "*not* the Placenta, and *not* the umbilical cord."

Ex. No. 1 looked up amusedly from the monotony of fossa navicularis, and the vestibule; the Benevolent One searched out a fresh place on his head and began to scratch it dubiously with a speculum. Falteringly the unfortunate student reached out his hand for the thing that might be nearest the Placenta. Alas! it was the Amnion.

"That will do," greeted his ear in tones that were to him as the garden-roller to the humble snail. He staggered to the door, conscious of weary leagues of Lusk and Galabin to be traversed once again in the near future. Then, emboldened by despair, that inoffensive man clutched the handle of the door and turned on his assailant.

"Would you mind forwarding your conundrum about the Abdominal Tumour to the "Truth" Puzzle Editor, so that ——"

Then those three rose as one man, and stretched forth their respective hand for an implement. He staggered back, pursued by the weapons of the obstetric art, until an obsolete instrument, appropriately known to the Middle Ages as a cranioclast, landed briskly on his skull and laid him low in the corridor.

Thanks to the kindly ministrations of the red-whiskered man-of-all-work cold effusions to the spine in the shape of a copy of the regulations for the ensuing year soon revived him; and although in a prostrate condition his complete recovery is confidently anticipated by his friends and medical advisers.

Extract from morning paper:—

A False Report.—It is rumoured that after the late lamentable affray at a West-End Examination the Government Commissioner asked for a demonstration on the anatomy of the vulva and the fœtal membranes, and on the subject of pelvic tumours from the examiners, in order that he might be better prepared to appreciate the difficulties and mistakes of the candidates, and the scope of the questions. This, it is needless to say, is entirely devoid of foundation.

GUY'S GAZETTE FORTNIGHTLY COMPETITION REGULATIONS.

A prize of *one guinea* will be awarded every fortnight, commencing in January, 1888, to the writer of the best article on some clinical or sientific subject (the choice of such subject being left to the individual candidates), provided always that sufficient merit be attained by the competitors on each occasion, and that there be at least three entries.

Should there on any occasion be less than three entries, the paper or papers submitted will compete against those in the next number. A prize of one guinea will be awarded to the best article in the two numbers.

Competitors for these prizes must in all cases have paid their annual subscription to the Gazette for the current year.

A member of the staff will be invited to assist the editors in the task of adjudication, and from his decision there shall be no appeal.

Selected articles will be published in the Gazette, and from these the prize competition will be chosen.

In cases where a meritorious article may have been crowded out, it will be eligible for competition on a *second* occasion, and the editors may, on their own responsibility, enter it for such competition.

The editors retain the right of publication of all articles submitted under these regulations.

The competing articles will be published anonymously, and should be accompanied by a sealed envelope, containing the author's name and address, and with the title of the paper written on the outside. The number of the prize winner will invariably be published.

Papers for competition must reach the editors at least a week before the day of publication.

A successful candidate will be allowed to compete again two months after the date when the prize was awarded him.

No precise limitation will be made at present as to the length of the articles, but they should average a page to a page and a half of the Gazette. In the case of clinical reports, something beyond a mere cataloguing of symptoms should be attempted, and the papers should be rendered as interesting and instructive as possible.

N.B.—*Gentlemen who may desire to contribute to the* Gazette, *but are unwilling to compete for these prizes, are of course at liberty to do so. As a means of distinguishing non-competitive articles, these should be invariably signed, either with some nom-de-plume, or, by preference, with the writer's name or initials.*

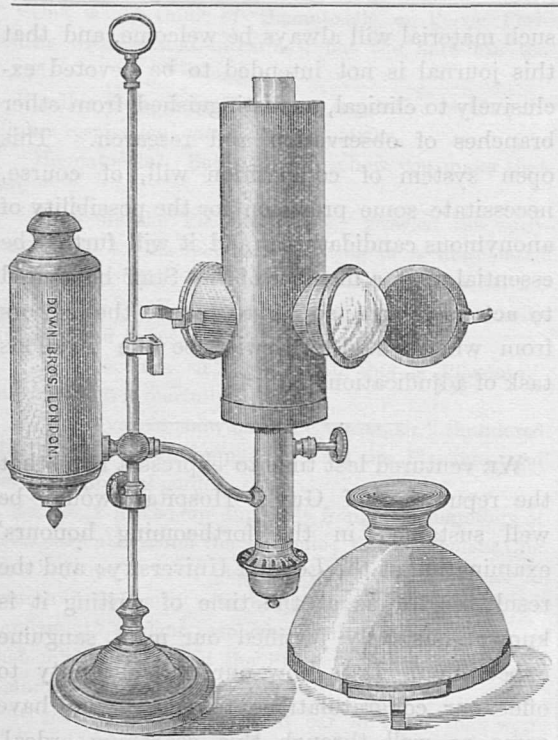
Passim.

At a recent meeting of the Presidents of the Physical Society, it was our privilege to announce the satisfactory condition of the financial affairs of the Guy's Gazette. We also suggested that a generous policy was indicated, as the best means of ensuring success in the future, still greater than has befallen us during the present year. It was decided that the interests of our readers would best be consulted, and the standard of our material kept at the highest attainable standard, by the offer of money prizes to the contributors of the most interesting and original articles on clinical *or scientific* subjects. We are well assured that our readers will approve of the scheme we have here announced, and that the management of the Gazette will have no reason to regret their determination to adopt an enterprising line of action. The spirit of competition will thus be introduced and kept alive—a most important element for the success of all modern undertakings. At the time of writing the details of the scheme are still undetermined; but a meeting will be held very shortly to consider the matter more fully, and they will, of course, be announced as soon as possible, in this, or, at latest, our next number.

One good effect which may fairly be hoped for as the result of this new departure, is that junior men will be encouraged to contribute oftener than has been the case this year. They will compete on equal terms with senior men, for it is manifestly to the interest of our readers that all scientific work should have a place in the columns of the Gazette. It has not, we fear, been sufficiently understood that such material will always be welcome, and that this journal is not intended to be devoted exclusively to clinical, as distinguished from other branches of observation and research. This open system of competition will, of course, necessitate some provision for the possibility of anonymous candidature; and it will further be essential that a member of the Staff be invited to act as referee, so as to relieve the editors from what would otherwise be the invidious task of adjudication.

We ventured last time to express a hope that the reputation of Guy's Hospital would be well sustained in the forthcoming honours' examination at the London University; and the result, so far as at the time of writing it is known, has fully justified our most sanguine expectation. It is now our pleasant duty to offer our congratulations to those who have come so well through this searching ordeal, and especially to Messrs. A. H. Tubby and W. L. Braddon, the winners of gold medals, in medicine and forensic medicine, respectively. The latter gentleman was also placed third in medicine. This, we may mention by the way, is the third year in succession that Guy's has scored the medal in jurisprudence.

It is gratifying to notice that subscriptions to the Gazette for next year are already beginning to come in. We hope to increase our circulation a great deal next year, and that there will be no desertions. There are a few gentlemen whose subscriptions for the present year are still unpaid. May we ask these gentlemen to kindly forward the amount without delay, as it is important that all payments should be made this year, so that our accounts may be properly brought up to date, and that we may know exactly how we stand. Friends will kindly accept this intimation.



Our illustration is intended to represent a lamp, invented by Mr. George Carpenter, now resident at the Evelina Hospital, and constructed by Messrs. Down Bros. It may be used either for laryngoscopy, or (by simply rotating the metal chimney) can be converted into an ophthalmoscopic lamp. By removing the metal chimney, and substituting the glass shade shown in the picture, we obtain a useful and ornamental reading lamp of 10 candle-power. The collar at the base of the cylinder is perforted, so as to allow a free current of air around the glass chimney, and prevent fusing from excessive heat. The chimney itself is of blue glass, by which means a purer light is obtained. We are informed that the lamp gives, for purposes of laryngoscopy, a light equivalent to that of twenty-five candles We have seen it in use, and can easily believe that this statement is correct. The only objection to the lamp is that it is expensive; but this, perhaps, may not affect some of our more fortunate readers.

Physical Society.

The last meeting of the Physical Society was held on Thursday, December 1st (Mr. G. B. Smith in the chair), when Mr. Bremner read a paper on the "Ætiology of Cancer."

Mr. Bremner commenced by saying that there are some diseases about the causes of which we know little or nothing, and which, therefore, must have great interest for us. Amongst these is cancer. It is always better, if we can, to find first the cause of a disease, and then, reasoning from this, to deduce its treatment; than to blindly search for the treatment, knowing nothing of its ætiology. Let us discuss that of cancer to-night. We will leave out the older views on account of the confusion in the nomenclature then existing. The definition of cancer is an infiltrating, infective growth, composed of irregular masses of epithelioid cells, enclosed in a fibrous stroma. The other definition of "an alveolar tumour composed of these elements," is insufficient, as it includes alveolar sarcomia, &c. The question is raised as to whether the epithelioid nature of the cells is acquired or inherent; the latter view having greater probability. Whether some of the cells acquire that character is discussed later on.

Chief varieties with their structure:—

1. Epithelioma, Columnar and Squamous, occurring superficially on epithelial surfaces, consist of nests and columns of cells; character partakes of that of the normal cells covering part, with fibrous stroma.

2. Scirrhus or hard Cancer: small masses of cells; much stroma.

3. Encephaloid: large number of cells; small amount of stroma.

4. Colloid: a degenerate form. Proved by recognition of process of change going on by microscopic examination, &c. Were the cells originally colloid, it would not be true cancer.

5. Myxo-Carcinoma and Myelo-Carcinoma: other forms of cells.

In all forms cells have an irregular shape.

It was held that cancer is a disease of the blood, and that some substance was deposited therefrom and became cancer. No such substance can be found, and there is no manifestation of this impure state previously to the disease. Nor is cancer inoculable as it should be were this true.

Sir James Paget and others have lately tried to prove that it is due to the action of a germ. He argues that it is

allied to various diseases, such as syphilis, actinomycosis, &c., and likens it to the products of the gall insects on oak leaves. One point in which it differs, at any rate, is that the tumours in all these cases are of the nature of granulation tissue, whereas in cancer the structure is always epithelioid and similar to that of the part in which it lies. Again, here, the non-inoculability of the disease is an argument against this cause, and although it has been lately said that a bacillus has been found, it has not been proved that cancer is due to that bacillus, nor that the bacillus is invariably found in this disease. It has been suggested often before. Thus it was said to be the cause by Quadris in 1750, and by Instamond in 1780, and by many others since. It would be absurd to deny the possibility of this mode of origin; but more evidence is necessary.

The theory that an ordinary inflammation due to injury may end in cancer, leaves us still in the same position with regard to the determining cause, and a history of injury can only be obtained in some 14 per cent. of cases.

Then Cohnheim's theory that it is due to persistent germinal elements is open to several objections, viz., the improbability of these pieces remaining quiescent so long, that they have never been demonstrated in epithelial structures, and although embryonal cartilage has been found, this is not analogous. That the structure is not like embryonic tissue.

Dr. Hodgkin's view that cancer was due to cystic degeneration has no foundation. The theory of a diathesis is unlikely, is apparently based on the heredity of the disease which may be explained otherwise.

Again, cancer is said to be due to the irregular proliferation of the epithelium covering a part on account of constant slight irritation to the surface. This forms a small mass, which, acting like a foreign body, would cause a slight inflammation in a person whose vitality, either generally, or just at that spot, was low, and this continuing, the parts underlying get absorbed by the growth which so feeds at their expense.

Firstly. Cancer always starts from an epithelial structure.

Secondly. In many instances we get a history of long continued irritation, as in clay pipe smoking, &c.

Now, supposing this inflammation to have occurred, the tissues around become crowded with small round cells, some of which are utilized in feeding others, which become epithelioid in character, the whole cell elongating and developing the property of active growth and multiplication, in some of the intermediate stages resembling the various-shaped cells found in cancer. It seems possible that they may grow in an irregular manner and become heaped up into nests, &c., and perhaps by their overgrowth and crowding, perhaps by spermatic influence, as has been suggested, lose the facility of developing into normal scar tissue, the space between being filled by fibrous tissue partly formed by some of the cells going on to develop in the ordinary way, and partly by the subjacent fibrous tissue sending out processes. The glands in cancer becoming infected in much the same manner as in inflammation, except that the cells which are carried by the stream probably contain some small element of the original growth. An argument in support of the irritation theory is found in uterine hyperplasia, which, due to constant irritation, is alike in many respects to cancer, and often ends in it: the cause of one should be the cause of the other. Again, cancer is found oftenest in different places in men to what it is in women, and in each sex these places are those most liable to irritation, long continued. As regards lowered vitality, cancer is usually found in persons exposed to influences having a depressing effect, either mental or physical. Although cancerous persons are said to be often otherwise robust, it does not follow that they are so. Strumous and phthisical patients often look healthy. And it is never found in the Esquimaux or in savage nations until they have been some time civilised; never, as far as we know, in wild animals, though frequently in the tamed or domesticated. Civilisation must be admitted to lower the vitality of a race. Then, cancer becomes more frequent as age advances; so, as a rule, does degeneration of tissue.

Heredity may be partly explained on this ground. That as with phthisical parents, so with cancerous, the children have less power to resist morbid influences. Then, with regard to locality, cancer is more common in low-lying countries, on the banks of streams, lakes, &c., than in high grounds; the inhabitants of these countries are usually less robust than mountaineers.

The manner in which this degeneration acts has been explained by Thiersch thus: That in the corium the connective fibrous tissue becomes loosened, and is more permeable by any insinuating body, or may even, by spaces being created in it, so to speak, invite the epithelium to enter. That cancer follows on other growths, may be explained by their having given rise to irritation or being more exposed to it. As to the reason of recurrence of cancer, it may either be that some part is left or that the scar of the wound is ill-nourished or irritable, or recurrence in another place

may be due to the deposit of some part of the growth. These secondary growths have been explained on all theories, of course. The inplantation theory or that of the deposit of some part of the growth in another part of the body seeming the most acceptable. It has been urged against it that these growths do not always occur in the direct stream of lymph or blood; but, probably, the intermediate places are not fit beds for the development of the disease. That they are but further manifestations of a general cancerous state either induced by a germ or otherwise seems improbable: for why should the secondary, if this were so, have the same epithelial character as the primary, although occurring in another part of the body. This appears a strong argument in favour of the theory of implantation and against the germ. Certainly, more than one form of cancer may exist in different parts of the same body, but these should then be both primary and not a divergence from the general rule.

Mr. MOTHERSOLE, in opening the discussion, congratulated Mr. Bremner on his admirable paper. He objected to the term "Carcinoma," which he regarded as neither scientific nor useful. He would divide growths into sarcomata and epitheliomata. He thought it quite unnecessary to assume the presence of a germ in epithelioma. If a bacillus was, however, the cause of cancer, we ought to strive to obtain a more successful result with germicide remedies. The degeneration theory appeared to stand on the firmest basis. Cohnheim had proved that you can only transplant a tissue into another of the same nature.

Mr. MACILWAINE thought that Mr. Bremner had left out a most important argument against the germ theory. He believed that germs pass very soon into the system, whilst cancer will remain local for a very long period of time. He considered that the germ theory was unnecessary. He pointed out that it is very common amongst cattle, and especially amongst cattle that are unable to find much food. It is believed by cattle owners that cancer amongst the animals is hereditary but not contagious.

Mr. CAMPBELL said that two things are necessary for cancer. There must either be some induration of the tissue, or the tissue must be one that is undergoing absorption, or, in other words, is undergoing a progressive atrophy; and he gave as examples cancer attacking the lip, os uteri, and breast. He explained fully in what manner he supposed such changes to take place. He did not agree with Mr. MacIlwaine in thinking that cancer developed in people of low vitality, and he instanced gardeners, who cannot be classed as people of low vitality, and yet who form a by no means small proportion of those who are affected by epithelioma of the lip.

Mr. RALPH pointed out the fact that syphilis very frequently preceded cancer of the tongue.

Mr. HICKMAN thought that cancer depended very much upon climatic influences, our island especially being very unfortunately situated. For his part, he would like to know how far the tendency to the disease was influenced by abundant or deficient supply of food. Had mental anxiety any power of causing cancer to develop in people who would not otherwise have been affected by it.

Mr. NORBURN drew attention to the theory that, the structures derived from the blastoderm not reaching perfection at the same time and then retrogressing together, the tissue affected by cancer was largely determined by age. In 1867, over 8,000 persons died of cancer; in 1885, nearly 16,000.

Mr. DURHAM critised the statements made by several speakers that there was no special reason for the presence of germs. He discussed the term "lower vitality" as regards the supposed ability of healthy tissues to resist the attack of those factors which determine the presence of cancer, whether the factor be a germ or not.

Mr. THISTLE attacked the statements made by several preceding speakers. He considered that cancer is a form of retrogression.

Mr. BREMNER having replied, the meeting concluded with a vote of thanks to the reader of the paper.

At the next meeting of the Physical Society, Thursday, December 15th, the Presidents have arranged to have two short papers on photography read; one treating of micro-photography, the other of general methods of photography. A number of photographs will be shown illustrating the papers. In addition to this, there will be a paper on some methods of cutting and staining sections. It is hoped that there will be three or four clinical cases with short papers on them.

At a meeting of the Presidents, on December 15th, the establishment of a Photographic Society in connection with the Physical Society, was finally decided upon. The regulations of the society will be found elsewhere.

On December 6th, the Presidents agreed to a proposal of the Editors of the GAZETTE to offer prizes in connection with the GAZETTE. A full account of the regulations is inserted in this number.

NOTES ON PATHOLOGY.

By DR. R. E. CARRINGTON.

(Continued.)

HEART DISEASE.

Forward effects of heart disease will be manifested in the pulse.

(*a*) *Mitral stenosis.*

Nothing noteworthy till regurgitation is superadded. The pulse may be small.

(*b*) *Mitral regurgitation.*

Pulse small, feeble, irregular or intermittent, or both.

(*c*) *Aortic stenosis.*

Pulse hard, slow (40 per minute).

(*d*) *Aortic regurgitation.*

Low tension pulse, which strikes the finger suddenly and suddenly recedes. It is best observed by grasping the forearm with the hand and not by feeling the pulse in the ordinary way. Water-hammer sensation increased by raising the arm.

Subjective effects of heart disease.

1. *Pain*, increased by exertion; starting in cardiac region and shooting down the left and occasionally the right arm, and sometimes accompanied by numbness or anæmia of the affected part.

2. *Palpitation.* Pain and palpitation are, however, more frequently the result of functional than of organic affections.

3. *Dyspnœa* is caused by exertion.

Orthopnœa, whilst sitting, is probably due to the fact that, in the sitting position, the patient takes the weight of the abdominal viscera off the diaphragm, so that the lungs and heart act to better advantage.

4. *Sleeplessness.* The patient dozes off, but wakes up with a start and a feeling of impending suffocation. In this condition full doses of morphia are given.

N.B.—The preceding notes all refer to heart disease due to endocarditis. The other forms of heart disease of clinical importance are:—

1. Hypertrophy and dilatation of heart following on pericarditis.

2. The two forms of fatty heart.

3. Heart disease which follows Bright's disease.

PERICARDITIS.

In its earliest stage it is best seen as the result of Bright's disease, and is always fatal.

1. There is hyperæmia and minute injection of vessels.

2. There is exudation of plastic lymph containing fibrin factors. This is deposited on the surface of the pericardium, and on account of the movements of the heart becomes deposited in various ways.

(*a*) Ridged like the sea shore.

(*b*) As if two surfaces, covered by a sticky substance, had been pulled asunder.

As a rule the amount of fluid is small.

3. Adhesions form, and, if the adhesions are of any degree of thickness, we have a fertile source of heart disease acting as follows:—

(*a*) Pericarditis is almost invariably accompanied by myocarditis, and the inflamed muscle becomes more or less paralysed. This condition will lead to dilatation. Myocarditis presents no marked features, P. M. But the layer of fat which is met with beneath a thickened and adherent pericardium is taken as evidence of it.

(*b*) The thick and adherent membrane interferes seriously with the action of the heart, and prevents the cavities emptying themselves. Therefore dilatation results from the myocarditis and the impeded action. As the dilatation increases the heart hypertrophies to compensate for it. These two processes go on side by side, till in time the mitral or tricuspid orifice enlarges. The cusps then fail to meet, and the result is mitral or tricuspid regurgitation.

We find, P. M., in a pericarditic heart the following:—

(*a*) A very large heart.

(*b*) Thick adherent pericardium.

(*c*) All cavities dilated and hypertrophied.

(*d*) Valves not punctured or contracted, probably thick from over work.

(*e*) Kidney healthy, or only congested. This last point is important, in order to distinguish such hearts from those of Bright's disease. A further distinction is that the pericardial heart occurs in young subjects, the heart of Bright's disease in those of middle age. It is important to note that the pericardium, even when adherent, is liable to further attacts of inflammation. The evidence of which is that the layers of inflammatory products are of different dates, varying from tough fibrous tissue to soft unorganized lymph. Sometimes a considerable quantity of serous fluid or pus will be found in the meshes of the old adhesions.

(To be continued.)

ROYAL COLLEGE OF SURGEONS.—At a Meeting of the Council, held on Thursday, Dec. 8th, F. S. Hawkins, M.B. Oxon, was admitted a Fellow of the College.

HONOURS AT LONDON M.B.—*Medicine*—First Class: A. H. Tubby (gold medal), W. L. Braddon. Third Class: T. Fisher, Risdon, Caldecott. *Forensic Medicine*—First Class: W. L. Braddon (gold medal and exhibition), T. Fisher. Second Class: A. H. Tubby, Nevins. Third Class: Caldecott.

At time of going to press Obstetric Honours not out.

Sport.

RUGBY FOOTBALL.

Guy's v. Dulwich College.—Played at Dulwich, on Saturday, Nov. 26th. Our men were terribly slack, hardly anyone putting in any decent work during the whole game. Fawcett showed up best among the forwards, who evidently had not yet recovered from their severe work in Yorkshire. The ground, too, was in a frightfully muddy state. Yorath made his *début* in the 1st XV., and put in some very excellent kicks, but nobody ever got to him to test his collaring power. Barr and Busteed also were given a trial at three-quarter. The former is a strong runner and plucky, stopping rushes grandly on several occasions; but he lost his head and passed wildly at critical moments. If he takes the trouble to learn the game thoroughly, and practice it, he ought to be a likely man next year, when we shall be in want of new three-quarters. We won in the end by two tries to nil.

Guy's v. R.M.C.—Played at Sandhurst on Saturday, December 3rd. The team consisted of Yorath (back); S. S. Wallis, C. J. Prime, and F. M. Russell (three-quarter backs); H. G. Steele and J. H. Bryant (half-backs); A. D. Fripp, J. Fawcett, W. C. Swayne, W. G. Rogers, N. Instone, W. Bligh, H. Wilks, H. B. Rygate and G. M. Pratt. So that it will be seen we had our usual team forward, but were weak behind. The consequence was that while the ball was among the forwards the game was very even. For the first quarter of an hour we pinned them in their 25, and were several times within an ace of scoring. Then our men slacked somewhat, and the ball got into neutral ground, and stayed there till just before half-time, when Lempriere made a grand run and got in between our posts. Macfarlan kicked a goal. After changing over, we were beaten by their three-quarters—all three of them played splendidly. Yorath proved a failure in the collaring line; in fact, he never got to the men. Wallis, who had been playing a most plucky game, got injured and practically placed *hors de combat* just before half-time, and so our defensive powers behind were seriously weakened. The forwards continued to play up and hold their own, but Lempriere scored twice more, each time by a long and brilliant run, and we were beaten in the end by 2 goals and a try to nil.

We were very much interested to see that Wakefield Trinity, who just managed to beat us by a goal to a try, defeated Bradford last Saturday.

ASSOCIATION.

On Saturday, December 17th, we, the Holders, meet Dulwich at "The Greyhound," Dulwich, in the first round of the Surrey County Cup ties. The results of the early part of the season have been anything but encouraging, scratch teams and a licking having generally been the order of the day. But for next Saturday a really good team has been got together, and they ought to be able to render a good account of themselves. Last Saturday we had a sort of preliminary trial of strength with Dulwich, and got beaten by 1 goal to nil. Only six or seven of our Cup Team were playing, so that it looks rather as if we ought to be able to turn the tables when properly represented. But then, of course, Dulwich may add to their strength, and, also, they may have been playing dark. We shall expect to see a large muster of Guy's men. Anyone who has played in cup ties will tell you how much easier it is to play up when cheered on by a goodly crowd of friends. Dulwich, as usual, at "The Greyhound," will have crowds of supporters, so we must make an effort.

During the last month the following matches have been played:—

Guy's v. St. Albans.—Played on Saturday, November 19th. Lost by 2 goals to nil. Team: W. J. Scott (goal), A. C. Roberts, G. W. A. Mitchell (backs), E. J. D. Mitchell, A. T. Brown, C. G. Roberts (½ backs), H. J. Holman, O. J. Bradley, J. L. Roberts, H. Wilks, and E. Hunt (forward).

Guy's v. Casuals.—Played at Wandsworth on Saturday, November 26th. The Casuals were strongly represented and we were playing 1 short all through and 2 short up to half time, the consequence was we got licked. F. W. S. Davies kept goal magnificently for us, several times saving tremendous shots from A. M. Walters.

Guy's v. Philberds.—Played at Maidenhead on Wednesday, November 30th. This was a very pleasant and even game, more so than the score at the end would seem to indicate, viz:—4 to 1 (Holman) against us. Team:—H. W. Webber (goal), A. C. Roberts, G. W. A. Mitchell (backs), A. T. Brown, C. G. Roberts, E. J. D. Mitchell (½ backs), H. J. Holman, C. D. Muspratt, W. G. Mitchell, O. J. Bradley, R. D. Mothersole (forwards).

Guy's v. Dulwich.—Played at Dulwich on Saturday, December 3rd. Lost by 1 goal to nil.

H. B. Bolus is coming up from Cambridge, where, by the by, he has frequently been keeping goal for the 'Varsity, to help us against Dulwich; and we shall also have the invaluable services of C. D. Muspratt and W. G. Mitchell, who seems to be able to do everything in the athletic line, and to do it well. F. H. Brown has been sorely missed—he has not played since he injured his knee in the Chiswick Park match, but it is hoped that he will be able to turn out next Saturday.

Guy's Hospital Gazette,

DECEMBER 24, 1887.

PROSPECT AND RETROSPECT.

His face is growing sharp and thin.
Alack! our friend is gone.
Close up his eyes; tie up his chin;
Step from the corpse, and let him in
That standeth there alone,
And waiteth at the door.
There's a new foot on the floor, my friend,
And a new face at the door, my friend,
A new face at the door.
["*Death of the Old Year.*"—Tennyson.]

Our editorial work of 1887 is almost completed—this very night shall see its close; and in the readers of the Guy's Gazette we shall no longer possess an assured, even if, at times, a dissatisfied audience. Yet, before we resign the gilt J-pen of office, we have a few words more that we would fain indite—a sort of funeral oration if metaphorical etiquette will permit us, for this once, to discourse as it were at our own obsequies. We will begin by pointing out that our fragile bark, thanks more to the courage and devotion of her stalwart mariners than to the guidance of the man at the wheel, has duly arrived at the end of her trial trip. The simile is perhaps a trifle threadbare, but under the circumstances inevitable, and could not with propriety have been omitted. To pursue it, we will add that our argosy returns to port apparently as sea-worthy as could, by the most sanguine of us, have been desired or expected. Her sails are untorn, her mast still tapers proudly towards the skies, her stays are taut and trim as ever. Let us hope that in her next journey as favouring breezes and as friendly waves befall her, and that many and many a voyage as prosperous is included in the unrevealed volume of her future destiny.

Looking back over the past year, there are a few lessons to be learnt, which, we are well assured, will not be lost upon those who are about to carry on the work. In the first place, we have learned that a journal such as this cannot be successfully run by a *committee*, however able and willing its component individuals, and however numerous. In fact, it is the very numbers which are fatal—the old adage is as appropriate as usual, and as undeniable. In an early number was published an imposing list of those who had "kindly consented" to be nominated to the staff of this paper. Some of these gentlemen have been most energetic on our behalf, and our steadiest supporters; others, it must be confessed, have done little or nothing to assist us. We read there one name at least, the representative of which is not even a subscriber to the Gazette, much less a regular contributor! Others there be, although subscribers and committee-men from the beginning, whose contributions to these pages are measured precisely by the length of their own patronymics, as these appear for the first (and last) time in the list we have referred to. So much for the committee system. It has been imperceptibly replaced by a far better one; the now pretty generally recognized conception that all Guy's men, past and present, are—or rather should be—*ipso facto*, members of our staff and possible contributors to our columns.

Perhaps this sounds too ambitious to some, but that cannot be helped. It is our business to be ambitious in this enterprise, and we shall persist in looking forward to the time when every student of this Hospital, and every practitioner who was once a student here, shall, as a matter of course, be a subscriber (if not also a contributor) to this the journal of his chosen school.

We hope that many of our readers will think it worth while to have their numbers bound up together into a durable volume. Some day, perhaps, it may be pleasant to look through the forgotten pages, for the links whereby the mind

retains communion with the past are of the slightest and frailest, and the sudden gleam of a single half-forgotten incident may recall to life a crowd of pleasant memories of the dear old times that we shall so inevitably live to regret.

But enough! we grow prosy, and, in sooth, the hour is late and the pen an indifferent bad one. We began with a quotation, which we considered seasonable. We have not indulged in this luxury for so long that we have a craving to repeat the vanity already. It is our last wish in the editorial capacity, and shall therefore be treated with indulgence. Thus then, the Editor, in the words of our titled Laureate, makes his final bow to those of his readers who have survived this article, and bids adieu to the joys and cares of office :—

> "But for my pleasant hour, 'tis gone ;
> 'Tis gone, and let it go.
> 'Tis gone : a thousand thus have slipt
> Away from my embraces,
> And fall'n into the dusky crypt
> Of darken'd forms and faces."

CASE OF COLITIS.

Fibroids—Cellulitis—Acute Enteritis—Death.

Harriet B., æt 41, was admitted into Dorcas, under Dr. Horrocks, November 16th, 1887. The following is a short abstract, with notes, of the case, which was of an unexpectedly interesting nature.

Family History.—Father died of consumption; mother of cancer of uterus. Has two brothers and four sisters alive. Of the sisters, one has a femoral hernia and one complains of "abdominal trouble."

Personal History.—Her health has been fairly good, as a rule. She has a rather florid complexion, is a fairly nourished woman, and looks pretty well. Though she insists upon it that she is very ill, she complains of nothing but the condition of her pelvic organs.

Married 22 years ; she has had five children, all born alive—three girls and two boys. Two were premature, and lived seven and nineteen months respectively. Her husband is living.

Menstrual History.—Commenced menstruating at 14 ; regular every four weeks, period lasting seven days, and being very profuse and painful, sometimes causing her to lie up. *Aura.* —Swelling of legs three days before, and pain in back and abdomen one day before period. Last period three weeks ago ; last pregnancy three years ago ; suckled for twelve months.

Present Illness.—Has had great bearing-down pains for last nine months, accompanied at times by retention of urine, which lasts some hours, giving her great pain in right side, and causing rigidity of abdomen. Had never had a catheter passed till admission.

Condition on Admission.—Lungs and heart normal ; the right radial artery is atrophied so that it can scarcely be felt even when her heart is beating violently. There is no apparent cause for this, and no abnormal pulsation making up for the deficiency. Her abdomen is supple, and there is no abnormality to palpation or inspection, except that, like her sister, she has a left femoral hernia, reducible. Tongue clean. Appetite fairly good. Bowels very regular. Urine, sp. gr. 1025. Urates. Acid. No albumen, sugar or blood. Pelvic organs :—Os uteri close to vulva. There is a large mass behind the uterus, filling up Douglas' pouch and coming very low down, there being an angle between the mass and the cervix. A hard mass can be felt through the prolapsed anterior vaginal wall.

The patient was kept at rest, and the vagina irrigated four times a day with hot water.

On the 18th, as the bowels had not been open since admission, an enema was given. It acted abundantly, but caused intense abdominal pain, copious hæmorrhage from the rectum,

retching, rigor, and great faintness. Hot bottles and brandy relieved the last two symptoms, but as the bleeding and pain continued an ice bag was applied to the perineum, and a half grain morphia suppository introduced into the vagina. She then became comfortable, and the bleeding ceased. Next day she had some diarrhœa, and passed a little blood and some mucus with the motions. Mist. hæmatoxyli producing no effect on the diarrhœa, it was controlled by two half grain morphia suppositories per day.

On November 26th, she was again examined by Dr. Horrocks, who found:—Rectum stands widely open; folds of Houston can be felt; no hæmorrhoids; a little fluid in the rectum. Sound passes easily four inches, concavity to right; mobility impaired; vaginal roof hard anteriorly, posteriorly, and to right. Finger in rectum and hand on abdomen—mass and uterus move together; solid everywhere; no fluctuation.

November 29th. Worse; complains of pain all over, for which no cause is apparent. Abdomen supple and not very tender. Diarrhœa returns directly morphia suppositories are discontinued. T. 101·6, P. 116, R. 28.

December 2nd. Worse; becoming emaciated; breath sweet; can take nothing but oysters and brandy and water; motions semifluid and very offensive; a drop from the rectum shewed, under microscope—striated muscular tissue; pus; large granular globules; crenated blood corpuscles; yellow crystalline bodies, and species of paramæcia in active movement. Pulv. Kino. Co. gr. xv. 4tis horis was added to the morphia suppositories and the rectum washed out with a small enema.

December 3rd. Only a few ounces of enema could be given as it caused great pain, but it brought away a large quantity of foul-smelling matter, some of which was in curdy flakes. She has had ten motions since yesterday. They are now perfectly liquid, but otherwise look healthy. Sordes on lips; tongue coated; tenderness all over. T. 100·2, P. 120. Suppos. Morph. gr. i. n. et m.

December 14th. Her temperature came down to normal in the morning, but rose again to 101·2 at 2 a.m. At 4·30 the nurse found her cold, collapsed, and scarcely conscious. P. 140. She had brandy and hot water bottles, but did not improve much. T. at 5 p.m. 102. Diarrhœa still continued, she became weaker and weaker, and died at 9·30.

Post Mortem.—There was a mass of inflammatory effusion in the right broad ligament, &c.; a fibroid about the size of an orange in the posterior wall of the uterus, and another about as large as a walnut at its junction with the left Fallopian tube. There was a meso-sigmoid, and the sigmoid flexure was partly adherent to the anterior pelvic wall near the pubes. The large intestine contained a huge ulcer, which extended from the cæcum to the first piece of the rectum, destroying about half its mucous membrane; and there was a small ulcer lower down in the rectum, but too high up to have been caused by the nozzle of the enema. The other organs were healthy.

It is said that we get a case of colitis from unknown cause, such as this, about once a year.

F. Wyatt Smith.

Cultivation of Lepra Bacillus.—Bordoni-Uffreduzzi states that he has succeeded in cultivating the lepra bacillus on agar-agar, broth, and blood serum, to which peptone, common salt, and glycerine were added. This appears to be the only recorded instance of success in cultivating the lepra bacillus. In a cultivation on serum of bone-marrow from a leper, which was kept at a temperature of 35° to 37° C., there developed in eight days a colony of bacilli, which, although somewhat thicker and larger than those which were found in the tissues inside the lepra cells, were yet entirely similar to those which were found isolated in the tissues. The staining methods shew them to be the same.—*London Medical Recorder.*

Lectures recommence at the Hospital on Tuesday, January 3rd.

THE TRANSMISSION OF ACQUIRED IMMUNITY.

Several authorities, among whom I may mention Kaltenbach and Grawitz, are of opinion that immunity from an infectious disease, acquired by the parents in consequence of protective inoculation, or from having had the disease once, is transmitted to their descendants to a greater or lesser degree. If this be so, it would confirm Darwin's views on the transmission of acquired peculiarities, or would necessitate important modifications in Weismann's hypothesis. On reading over a paper by Kaltenbach, in *Virchow's Archives* (*vol. 101, p. 14*), advocating these views, I thought it would be interesting to see how far the facts adduced by him in support of them could be explained on the other hypothesis. He first quotes two cases of congenital immunity which seem to support his theory. His first instance is of two girls, A and B, twins, out of a family of six. In 1880 A was exposed constantly to infection from a younger sister who had scarlet fever, yet she remained perfectly healthy. In the following year B had scarlet fever. A was again in constant attendance upon her, but did not contract the disease. This was the more striking, as up to that time both twins had had every cold and slight ailment together, and both had measles *twice*. Kaltenbach explains this immunity by the fact that the mother had had scarlet fever when she was six years old, and there was no history of the father having had it. He thinks this view is strengthened by the fact that A resembles her mother, while B is more like her father!

The second case he quotes is wanting very much in the necessary details to form a correct judgment upon it. He then adduces a series of well-known facts, which seem to support his views. Thus, an epidemic is generally more virulent the longer the time be since its last outbreak in the community; and even measles, if introduced into a region which has long been free from it, may assume a pernicious character. He cites, too, the horrible ravages which small-pox has wrought among the Indians of North America since it was introduced by the European settlers.

In contradistinction to this increased susceptibility to disease, we find in some races a more or less complete immunity to certain endemic affections. Thus, the negro inhabitants of equatorial Africa seem to be nearly or quite incapable of contracting some infectious diseases, attended with high fever, which are very fatal to European travellers. We may instance malaria and yellow fever. Kaltenbach suggests that this is due to immunity acquired through their ancestors in consequence of continual exposure to these diseases. In the same way he explains mouse septicæmia, which was shown by Koch to be extremely fatal to the domestic mouse, while the field-mouse is perfectly insusceptible, although these two varieties of mouse resemble each other in almost every particular except their habitat and mode of life.

It appears to me that these facts do not necessarily support the idea of the transmission of acquired peculiarities. With the exception of these two cases of Kaltenbach, I do not know of any clinical evidence supporting his views, and he himself acknowledges that they are the only cases he has been able to cull from all his experience. I think there is no doubt that we are being continually inoculated with the germs of various specific diseases that occur around us. These germs, however, must find some weak point before they can multiply and cause general infection. In the majority of cases our gallant phagocytes seize upon and devour the intruding germ before it can do any harm, and are then enabled to cope with a larger number of germs next time. In fact, I think, in the wards and out-patient department of a hospital, we are being subjected to a

universally protective inoculation continually repeated, as in Pasteur's treatment for hydrophobia. How very rarely do we find medical men contract infectious diseases compared with the number of times they must be exposed to them. This is probably one reason why these diseases are so much more virulent when they break out in a place where they have not been known to occur for some years.

Then, as to the immunity of certain races to certain endemic diseases. This is readily explained by the accumulation of tendencies in the germ plasma, under the influence of natural selection. Suppose a negro race that has just settled in a malarious district. It is probable that all would be affected, but in various degrees. Those who were most affected would die, and thus produce no descendants. Those who lived on would bear children. The *average* susceptibility of the second generation would be somewhat less than that of the first. Again the same process of weeding out the weaker and more susceptible would go on, so that in the course of time—it might be hundreds or thousands of generations—the race would be almost, if not quite, incapable of taking the disease. In the same way, on the principle of the survival of the fittest, by their intermarriage, thus increasing the tendency of the product of the germ plasma to resist the disease, we might explain the immunity of the field-mouse to mouse septicæmia. It is evident that the process of natural selection would go on much more freely amongst savage than amongst civilized races Indeed, as Herbert Spencer points out, the tendency of medical science and civilisation is to abrogate the natural law of the survival of the fittest, by preserving a diseased stock and by helping the weak at the expense of the strong. It has been argued that, on this account, both are harmful to the community. I am not quite sure that it is so. The value of a community is probably more dependent on the intellectual and social qualities of its members than on their bodily strength, and by preventing the operation of the natural laws with regard to their bodies, we provide for the survival of the best man rather than the best animal.

E. H. Starling.

Correspondence.

To the Editor of Guy's Hospital Gazette.

HOW A SHAM LAMENESS WAS QUICKLY DETECTED.

Sir,—Fifty years ago, or thereabout, the first Monson Hill, portly, dignified, with white hair, running over with fun, but always held in full check, was in his prime. He was only "Cupper" in the days of V.S. cum Ferro ad ℥iii., and Superintendent of the Surgery and the instruments—splints, plaister, &c. At that time the "reception room," or surgery, was down-stairs under the new reception room. Stairs led down to it, and by the side was a little room, the sanctum of Hill, with a window opening on it, with splints, pads, and plaisters. An old woman came down the stairs, and was seen and attended to. She was very lame from the dreadful pain and stiffness in one leg. Hill had observed this, and as she went up the stairs, he slipped into his room; and as the old soul limped up, he put his hand out and pinched her leg. "D——n the little dog," she cried; but the "little dog" produced an instantaneous cure.

I need hardly add that among us students, Hill was before the first surgeon of the day, and, indeed, this feeling was justified, for his quickness at detecting a fracture was marvellous; and his handling the gentlest.

—Yours, IN MEM.

HONOURS AT BURLINGTON.

Dear Sir,—As the above subject has already been broached in a previous number of the Gazette, permit me to say a few words from the point of view of the University. The separate Examination for Honours in the Prel. Scientific and Intermediate M.B. was abolished for the following reasons:—

1. The length of time involved in two examinations, and the extra expense on provincial candidates by the longer residence in town.

2. To diminish the number of Competitors for Honours, and so to enable the examiners to consider more carefully the respective merits of the papers submitted to them. By these means all mere "shots" at Honours are prevented.

3. It has worked well among the other Faculties of the University; and has long been in vague at the older Universities of Oxford and Cambridge.

It may be objected that the above reasons have little weight in their application to medical examinations, for candidates are almost entirely students working in London, who are less concerned about their exact position in Honours than in the fact of their appearing there at all. With this I quite agree. But instead of petitioning that the previous regulations be reinstated, may we not compromise the matter? Let only those who have obtained a first class in the pass examination be admitted to Honours. This would limit the number of candidates, and would also ensure that they were all well grounded in each of the subjects embraced by the examination. Whatever view may be taken of this question, it is only right that the case for the defence should be stated, and then your readers will be in a position to give "a true verdict according to the evidence."—I am, &c., T.

NOTICE TO SUBSCRIBERS.

We beg to remind our Subscribers that the next number will commence a new volume. It is hoped that there will be no falling off in the number of our supporters, our circulation at present being nearly four hundred. Particulars as to the terms of subscription will be found on the wrapper of the Gazette.

NOTES ON PATHOLOGY.

By Dr. R. E. Carrington.

(Continued.)

HEART DISEASE.

Fatty Heart.

This form of cardiac disease is not followed by the usual results except in very rare cases; *i.e.*, there is no dropsy and no enlargement of liver.

There are two forms of fatty heart.

(*a*) Fatty infiltration.

(*b*) Fatty degeneration.

(*a*) *Fatty infiltration* is generally most marked in the left auricle. It consists of an overgrowth of fat, which passes into the muscular fasciculi, and causes atrophy or absorption. Often the atrophy is preceded by true fatty degeneration of the muscular fibres. In an extreme case the entire ventricular wall seems to be made up of fat.

Microscopically, a considerable quantity of muscular fibre will be found.

Such a condition of heart is generally met with associated with obesity, but sometimes without it. Alcohol is, perhaps, the most frequent cause, but alcohol is also a cause of obesity.

(*b*) *Fatty degeneration.*

In this case there is an actual deposit of fatty matter in the muscular fibres, at first in the granular, but later in the globular form. So that in an extreme case the sarcolemma is full of oil globules, the muscular structure having entirely disappeared. It appears that there is no (or only very slight) absolute increase of fat. The analysis of a fatty degenerated heart being almost the same as a healthy heart.

Causes.

1. Obesity.
2. Wasting diseases; phthisis, cancer, long suppuration.
3. Poisoning, especially by phosphorous.
4. Specific fevers (actual cause is high temperature).
5. Anæmia from any cause, but especially idiopathic. One of the most important forms is local anæmia, the result of disease of the coronary arteries, for this often leads to rupture of the heart. The earliest appearance of fatty degeneration is found in the musculi pectinati of the mitral columns. These will be found transversely striated in a zigzag manner, with alternate layers of fatty deposit and normal muscle, called the "*Tabby Cat*" striation.

Fibroid Disease of the Heart.

Patches of fibroid tissue are met with occasionally in the substance of the wall of the heart, generally the left ventricle or the septum.

Sometimes in such a condition the cavity is found dilated. But this condition usually ends in sudden death. The question is raised as to whether such patches are not the result of gummata.

Congenital Heart Disease

is believed to arise from intra-uterine disease, not from arrest of development.

1. The most common condition is as follows:—

(*a*) Before the septum of the ventricle is perfected, endocarditis of the pulmonary valve takes place, and causes various degrees of obliteration of the pulmonary artery.

(*b*) The blood being prevented from flowing through the pulmonary artery, will pass from the right ventricle to the left over the top of the incomplete septum, and will prevent its closure.

(*c*) The *foramen ovale* may or may not be prevented from closure from the same causes.

(*d*) Frequently the *ductus arteriosus* also remains patent.

2. Sometimes there is a common ventricle from which both aorta and pulmonary artery arise.

3. Sometimes the *foramen ovale* remains patent, sometimes the *ductus arteriosus*.

4. Sometimes there is only one auricle and one ventricle.

5. Sometimes there are two auricles and one ventricle.

Hypertrophy of the heart is always secondary to some disease or to overwork. Probably the only instance of simple hypertrophy without dilatation is met with in Bright's disease; but even in this case we rarely meet with a greatly thickened left ventricle without any dilatation.

Dilatation and hypertrophy in other cases are secondary to:—

(*a*) Valvular disease.

(*b*) Adherent pericardium.

(*c*) Bright's disease.

(*d*) Fibroid disease of heart.

(To be continued.)

Passim.

We hear that the Governors have consented to the fitting up as a Gymnasium of that unoccupied space behind the Club Rooms, and we may now regard this as an accomplished fact. This will supply a long and very sorely felt want, affording to those residing in and around the Hospital some means of getting exercise, formerly unattainable. This step will, if possible, increase the popularity of the Club, which may be looked upon as a great success, boasting as it does of over two hundred and fifty members, although existent barely three months.

The last meeting of the Physical Society went off very well, the proceedings at no time being at all tedious. Short papers on practical photography were read, these being copiously illustrated by photographs passed round; and several cases were shewn, their salient points being discussed. It would be better if future meetings could be made to conform more to the plan on which this one was arranged. Instead of one long paper followed by a discussion, which, in the case of a subject not admitting of much debate, is more or less halting and uninteresting, the proceedings might be variegated and enlivened by the exhibition of the photographs of cases recently taken by the Photographic Committee of the Society, or by short papers and discussions of cases capable of being shewn. It has been proved time after time that such clinical evenings are productive of far more interest and pleasure to all concerned.

We are asked to announce that on January 6th, a dramatic performance will be given by the Anomalies Amateur Dramatic Club, in the Governors' Court Room, when Sydney Grundy's comedy, "The Silver Shield," will be produced. Tickets may be obtained of the Senior Residents.

We are very pleased to hear that Mr. Wyatt Smith has obtained the post of Resident Medical Officer at the British Hospital, Buenos Ayres.

It is extremely satisfactory to be able to state, and very creditable to the Hospital, that a sum of over seventy pounds has been collected from the students for the Christmas ward and dinner fund.

Physical Society.

On Thursday, December 15th, a Meeting was held (Mr. Lloyd Roberts in the Chair), at which papers were read by Messrs. Evershed and Kelbe, and cases shewn by Messrs. Wyatt-Smith, Black and Campbell.

Mr. Evershed was called upon to read his paper on Photography.

He said, that in the few minutes allowed to him, he could only touch upon the most salient points of his subject.

On setting about photography, our first proceeding is to provide ourselves with a ruby lamp in order that we can develop our plates in a non-actinic light, for the rays that have most effect on the sensitive film on the plate are those which come from the violet and blue end of the spectrum. Hence any room from which these rays can be excluded can be used as a "dark room," as it is called. We shall also want a table, which can be covered with a piece of mackintosh or oil-cloth, 3 ebonite dishes, a large jug of water, and a pail for the waste.

For apparatus we require a camera and its stand, a lense, and a dark-slide.

In the selection of a camera I would recommend that one be obtained from a reliable maker, and in consequence a fair price paid. There are about 150 different patterns of cameras in the market, but only about 20 really trustworthy manufacturers.

The same remarks apply to lenses; the market is flooded with lenses ground in France, sent over to England, and then mounted anyhow by the various dealers in their own mounts. The English lens manufacturers can be depended on for sound and thoroughly honest work. They are Dallmeyer, Swift, Ross, Beck and Wray, of London, Taylor of Leicester, and Grubb of Dublin. There is one French lens that I will except from my general condemnation, one known as the "Optimus," manufactured in France by Lejeune and

Perken, and sold over here by Perken, Son & Rayment. It is moderate in price and is certainly an excellent lens.

The sensitive plates are many and various. Any of the following are good—Fry's, Wratten & Wainwright's, Edwards', The Derby, Thomas's, and Paget's.

The sensitive plate is coated with a film consisting of emulsion of gelatine containing in suspension in an exceedingly fine state bromide of silver. This plate is exposed to the rays coming through the lens in a dark slide. When it is thus exposed, a change takes place in the silver bromide in proportion to the amount of light it receives from the various parts of the objects exposed; the most brilliantly lit parts, or "highest lights," giving off most rays and causing a greater change than those parts which are in half-tone, and still greater change than those objects which are in shadow, and which just manage to impress their image on the sensitive compound. The image thus formed is invisible to the naked eye and is therefore called "latent," and requires to be "developed" or made visible.

The developing agent generally used is pyrogallic acid, and with this an alkali, either ammonia, or carbonate of potassium, or of sodium. This is called the "accelerator," as it hastens the appearance of the image. If ammonia is employed it is necessary to use with it a bromide salt, as its action is very energetic, and the image would flash out so quickly that we should have no control over it. This bromide salt is called "the restrainer." Solutions of these chemicals are made with pure water and combined in varying proportions according to the quality of the negative we wish to obtain, it being a fundamental law that pyrogallic acid gives density, and ammonia or other alkali detail.

The next process the plate has to undergo is that known as "fixing the image": this rather vague term meaning that the image due to the exposure and development shall be so treated that it undergoes no future change. For only a portion of the bromide of silver in the film has been utilized in making the negative, by far the larger part of the film remaining unaltered. This unaltered silver bromide, if allowed to remain, would to a certainty be darkened by light in the course of a short time; so this silver salt must be got rid of, and the solvents for it are cyanide of potassium or hyposulphite of soda. As the former is both expensive and very dangerous it is not used. A solution of hyposulphite of soda is made, and the plate placed in it. If we watch it we shall see the opacity or cream-like colour gradually fading away, and when it has all gone we have our "negative."

From this negative is obtained the "positive" print, that is a print in which the different tones of the original landscape are rendered in their proper gradation.

This positive may be obtained on paper ready sensitivized, by which is meant a paper which changes on exposure to light. It is prepared by albumenizing the paper and then floating it on a nitrate of silver bath, the resultant print being of the familiar brown or purple tone; or a paper coated with a somewhat similar emulsion to that used for the plates may be employed, the print being of a warm black colour; or a paper sensitivized with a platinum salt can be obtained, the tone in this case being a cold grey. If albumenized paper is used it is necessary to precipitate on the silver image a fine deposit of gold; and in all the processes it is necessary to dissolve out the unaltered sensitive salt by one of its various solvents.

To those uninitiated, the various manipulations mentioned may appear to take some time, but several negatives may be developed together. There is no occasion to develop directly after the exposure; plates have been kept months between exposure and development.

If any feel inclined to take up photography, I say, do so: and I feel sure they will not regret it. The first expense is certainly heavy, but the after expenses are slight.

To medical men, photography is useful in many ways, for permanently recording clinical cases, pathological specimens and microscopical sections.

Mr. Evershed concluded his paper by kindly offering to assist any who wished to take up the art of photography.

Mr. KELBE next read a paper on Photo-micrography, and he commenced by stating the needs of the would-be photo-microscopist. These are:—a source of light, a microscope, apparatus for focussing the image, a sensitive medium, apparatus to enclose the sensitive medium and the objective, and the object to be photographed. Taking first of all the illumination of the object. For ordinary low powers, say as high as $\frac{1}{4}$ or even $\frac{1}{6}$ the ordinary petroleum lamps with broad wicks do very well, turned the broad way for the lowest powers and edgeways for the higher. A lump of camphor put into the oil increases the actinic power of the light, and the quality of the oil makes a considerable difference in the exposure also.

Latterly I have used gas which, although not so white as the light from petroleum, is much more convenient, as the intensity always remains the same, and one does not find that the oil has run out just as the exposure is about to be made. A burner after the type of the

Argand must be used, as the flame from an ordinary burner is too unsteady. Behind the light is put a concave reflector, and in front a small condenser; and if one has any respect for the objective and object, it is better to cut off the heat rays by interposing a cell of ammonio-sulphate of copper between the condenser and source of light. With an ordinary petroleum lamp this is not necessary, and, although risky, I have used gas without it.

The highest powers necessitate stronger illumination than the above mentioned, especially if the eye-piece is used; but I will do no more than mention them, never having used them. They are—the electric light, by which various micro-organisms have been photographed, the oxyhydrogen and oxycalcium lights, and magnesium wire. The latter, especially, lends itself to micro-photography, as it is highly actinic, steady, uniform in intensity, and easily obtainable. It is used by passing it through a concave reflector by means of clockwork placed behind the reflector. Daylight has been used, but the exposure required for different micro-sections varies quite enough without multiplying the difficulties by using such a variable light as that is; and using sunlight in London is, as a rule, out of the question.

Practically any compound microscope can be used, so long as it has a fine adjustment, and for high powers this must be very fine. There must be no lateral or angular movement of the microscope tube, and with high powers a mechanical stage is a practical necessity. With regard to the objective, flatness of field and depth of focus are required according to the object to be photographed, so that, if one can, it is best to have both wide and narrow angle objectives. But for general purposes narrow angle objectives are the most useful, although they do not let through so much light and consequently the exposure is longer than when wide angle lenses are used. Immersion lenses are a good deal used now as a high magnification can be obtained with a comparatively great deal of light. The objectives now sold for photographic purposes are "corrected," so that the chemical and visual foci coincide, this correction not existing in ordinary objectives.

A point about which photo-microscopists differ is whether the eye-piece should be used or not. It seems to be mainly a point of light because just as good definition can be obtained with as without it. But the loss of light when using high powers is very great, with low powers there not being this objection, as long as nothing larger than ½ plate is used. The manipulation is certainly easier when the eye-piece is used.

When using the objective alone, it is better, where possible, to have a short tube, say 1½ inches long, to screw the objective into, as the ordinary microscope tube cuts off some of the field, this tube being lined with velvet to prevent reflection.

A moot point with photographists is the size of the image. I believe it is chiefly in America that the object is photographed directly on to large plates (that is larger than ½ plate size) with the focussing screen several feet distant from the objective. But a great many photographers use small plates, the size of the ordinary lantern slide, and from these take enlargements. But these enlargements do not come up to photographs taken directly on to a large plate. Each method however has its pros. and cons. With the latter there is the double trouble of taking the direct negative and the enlargement, but some advocate it because of the greater ease in focussing and the shorter exposure required.

Dr. Maddox, although allowing that it is impossible to lay down any hard and fast rule, says that if you use "sections (using low or medium powers) where the different refractive power of the various component parts differ sufficiently, and considerable penetrating power of the objective is needed to cover the different planes, and if the magnification be not carried beyond ¼ or even ½ plate, then the magnification may be direct."

With regard to focussing I have found it best to use a single wet plate dark-slide, and I use it thus:—the piece of ground glass, the size of the plate to be used, is put into the dark slide and the position of the image corrected if necessary and a rough focus obtained; a piece of plain glass is then substituted, and by means of an ordinary double convex lens, the image must be accurately focussed. In this way an image, that can barely be seen on the ground glass focussing screen, can be easily and accurately focussed. The advantage of the single slide is that the sensitive plate can be placed in exactly the same position as the focussing screen. When the distance between the objective and focussing screen is long, and the fine adjustment cannot be easily reached, some means must be devised for turning it at the dark-slide end of the apparatus. Unless objectives are used which are corrected for photographic purposes, a slight turn of the fine adjustment must be made to correct the difference existing between the chemical and visual foci.

Focussing is not so easy as it sounds; it requires a great deal of care and patience, especially with pathological slides, where, perhaps, a photograph is wanted of two groups of cells in the same specimen, but which lie in different planes of the section; or, where the

specimen is very translucent, and very little light has to be used. The focussing must never be begun until quite five minutes have elapsed after the light has been turned up, otherwise the expansion due to the heat from the lamp will have altered the focus.

Next, with regard to the plate, there is very little to be said. The extra rapid plates should be used so as to shorten the exposure as much as possible; because, when high powers are used, it would run up to many minutes, and with some sections, hours, if the ordinary ten times were used. Orthochromatic plates ought to be specially serviceable for Photomicroscopy, as the use of them would prevent that strong contrast in photos of specimens containing brown, which invariably comes out black if the more transparent parts are correctly exposed. A good quality of plate is also necessary, and when enlargements are to be made, those plates that show least grain in the gelatin should be used. The new Argentic-Gelatino Bromide Paper of Eastman, or Morgan and Kidd, is very useful where only one copy is wanted, and it does not matter whether the relative shades are reversed. It cannot be used with high powers, unless very strong illumination is used, because it is very slow.

It is imposible to calculate the exposure in photo-micrography, as it depends on innumerable things—the lenses, the method used, the thickness and colour of the section, the light, &c., &c. Yellowness of the balsam greatly increases the exposure, and this might easily be overlooked when focussing, because there is nothing to compare it with. With the eyepiece and a petroleum lamp it varies from 1 sec. upwards. As an example of the great variation required, the following is an example: using the eyeglass, I gave a slide of Tubercle Bacillus half an hour under one-seventh inch; taking the photo on bromide paper, under the same conditions, but with a one inch objective, I exposed the paper for a quarter of an hour. The first one was completely under-exposed, and I could force nothing by development; the second one was hopelessly over-exposed.

Next some apparatus is required to enclose the rays from the objective to the plate and shut off extraneous light. When the eye-piece is used, an ordinary camera is long enough with the microscope tube put through the hole for the lens in the camera. But when only the objective is used, one must have a tube the size of the plate, made either of wood or some opaque material, capable of extension to 4 feet or more.

It is not at all easy to select specimens suitable for photo-micrography. Insects, diatoms and even striated muscle fibres, and other specimens where the parts differ sufficiently either in colour or refraction, and show more or less diagramatically, are easy to photograph compared with most pathological specimens. These I think will never make satisfactory photographs, because, in the first place, it is so often necessary to show more than there is in the field of the microscope at one time, so that two or three photographs would have to be taken of the same section; and, secondly, because a great deal is lost by the photograph being in black and white. For instance, lardaceous kidney, I think, could not be recognized unless it were extreme.

Photography is all very well where the exact shape or relative position of an object that is well defined is wanted, but where there is anything indefinite a good drawing I think is much the best. With regard to stain, logwood does well enough if the specimen is darkly stained, but a lightly stained one always comes out flat. Bismark brown is said to be one of the best, and carmine stained sections also photograph well.

Mr. Wyatt Smith then discussed an obscure case which had recently been in the Obstetrical Ward.

Mr. G. Black showed a case of multiple tumours of the body. The patient, a man æt. 23, comes from Hereford; general health very good, and with no family history of similar tumours. From his birth the tumours have existed, and the right half of chin has been hypertrophied. After an injury to the chin, when three years old, the hypertrophy became more marked. Six years ago a wedge-shaped piece was taken from the chin, but the deformity was not remedied. Nothing further was done from this time until October last, when he was sent up to Guy's. On admission, the right half of the chin was seen to be very much hypertrophied and prominent, felt soft, and no hard nodules could be felt in it. In the right infraorbital region there is a distinct hard, lobulated tumour, freely moveable under the skin; leading from this to the root of the zygoma, where there is another moveable tumour, is a row of little bead-like swellings; over both clavicles are a few globular swellings each about the size of a pea; along both fore-arms, on the outer and anterior aspects, are similar bodies, some of which can be seen to be distinctly connected together A similar condition exists in both thighs, along the ilio-tibial band, and inner aspect of limb. There is no glandular enlargement anywhere, and no pain on pressing upon the tumours. All over the body are numerous moles.

On Oct. 7th Mr. Howse removed the tumour from the infra-orbital region, and also a piece of the hypertrophied chin. Microscopical examination of the tumour

showed it to be of a fibro-sarcomatous nature, while the piece from the chin showed numerous spindle-shaped cells.

The deformity of the chin was not much relieved, but there has been no recurrence of the tumour under the eye.

The origin of these tumours is very obscure. They are congenital, and are, undoubtedly, mesoblastic. Their microscopical structure points to their being of a sarcomatous nature, quite benign, since they have existed for so long without increasing in size. That they are connected with the lymphatics seems probable, owing to their position, and the fact that little strings can be seen extending from one tumour to another, so that on pulling up one the other can also be pulled up. The absence of pain on manipulation precludes their being neuro-fibromata. Whether the condition of the chin has anything to do with the tumours is not quite evident; for, although it is quite possible to have resulted from the degeneration of nævoid material, yet the presence of the spindle cells in its structure shews a similar condition to that existing in the tumours.

The patient will shortly undergo a furthur operation, when the tumour under the zygoma will be removed. It will be extremely interesting to follow up this case and watch its termination—whether the tumours will always remain benign, or, at a later period, take on a more active and malignant career.

Dr. CAMPBELL shewed a boy suffering from Icthyosis, and gave a short account of the disease.

AT a recent meeting of the Presidents, Mr. C. J. Whitby resigned the post of editorship of the "GAZETTE." A cordial vote of thanks was passed to him. Mr. G. B. Smith was then elected Editor, and Mr. Lloyd Roberts Clinical Editor.

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M.S. EXAMINATION.

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FORTNIGHTLY COMPETITION.

This competition commences with the next number, and gentlemen are reminded that contributions should be sent in by Saturday, December 31st. The regulations are printed below.

A prize of *one guinea* will be awarded every fortnight, to the writer of the best article on some clinical or scientific subject (the choice of such subject being left to the individual candidates), provided always that sufficient merit be attained by the competitors on each occasion, and that there be at least three entries.

Should there on any occasion be less than three entries, the paper or papers submitted will compete against those in the next number. A prize of one guinea will be awarded to the best article in the two numbers.

Competitors for these prizes must in all cases have paid their annual subscription to the GAZETTE for the current year.

A member of the staff will be invited to assist the editors in the task of adjudication, and from his decision there shall be no appeal.

Selected articles will be published in the GAZETTE, and from these the prize competition will be chosen.

In cases where a meritorious article may have been crowded out, it will be eligible for competition on a *second* occasion, and the editors may, on their own responsibility, enter it for such competition.

The editors retain the right of publication of all articles submitted under these regulations.

The competing articles will be published anonymously, and should be accompanied by a sealed envelope, containing the author's name and address, and with the title of the paper written on the outside. The name of the prize winner will invariably be published.

Papers for competition must reach the editors at least a week before the day of publication.

A successful candidate will be allowed to compete again two months after the date when the prize was awarded him.

No precise limitation will be made at present as to the length of the articles, but they should average a page to a page and a half of the GAZETTE. In the case of clinical reports, something beyond a mere cataloguing of symptoms should be attempted, and the papers should be rendered as interesting and instructive as possible.

N.B.—*Gentlemen who may desire to contribute to the* GAZETTE, *but are unwilling to compete for these prizes, are of course at liberty to do so. As a means of distinguishing non-competitive articles, these should be invariably signed, either with some nom-de-plume, or, by preference, with the writer's name or initials.*

Sport.

RUGBY FOOTBALL.

Guy's v. Queen's Football Club.—Played on Saturday, December 10th, at Eltham. We had a strong team and won by a goal and two tries to nil, a score which would in all probability have been materially increased if the ground had not been in such a slippery condition that the three-quarters could scarcely ever get off. H. M. Jordan made his reappearance in the team for the first time since his injury in our Cup Tie versus St. Thomas's last season, and played middle three-quarter; Evans and Prime being the wingmen. Evans was in grand form and scored two of the tries; one about ten minutes from the start, after a grand run by Jordan from the half-way flag to within a few yards of the goal line where he passed; and the other by a dodgy run and a two minutes' single-handed *maul* with two Queen's men. In a business-like way Evans kept a good hold of the ball, and sat on one man's chest till he was done for, and then repeated the tactics with the other one. Prime put in some good drops, but disgraced himself by two flying kicks. We are not accustomed to seeing Prime offend in this direction, and sincerely hope, for his sake as well as our own, that it will never occur again. He ran well when the ground would let him get off, and scored a pretty try after a most showy run and pass by Bryant, who was in splendid form throughout the game. Steele was hardly up to his usual form—in fact, the passing among our backs was on the whole clumsy, not to say bad; but the wet state of the ground and ball had a lot to answer for. Instone, Fawcett, and Raw showed up best among the forwards—especially Instone, who has developed into one of the best forwards in the team. He has a happy way of coming through the scrimmage with the ball at his feet; he is also a steady and effective dribbler, and always on the ball.

Guy's *v.* Rosslyn Park.—Saturday, December 17th, at Acton, before a goodly assembly of Guy's supporters. We were again strongly represented, and won by a goal and a try to a try. At the start we were rather slack, and our opponents scored in about 10 minutes. Then our men pulled together and quickly acted on the aggressive. Our forwards got the upper hand for a time, and we spent most of the rest of the first half in their 25, scoring twice.

After changing over we failed to score again, but, on the whole, we continued to have decidedly the best of the game, and they never more became dangerous. Jordan, Mitchell and Prime were too strong a combination for them, Mitchell in particular doing a lot of brilliant work. Wallis at back, and Steele and Bryant at half, were very safe, but there was a marked feebleness about the passing. This largely accounts for our not winning by more, but the chief fault lay with the forwards, and there was a complete absence of that dash and combination which they showed in November, and no time must be lost in January in getting back into the old groove and pushing along it. There is a marked improvement this season in the out-of-touch play, and the scrimmage work is on the whole good, but several of the forwards seem unable to use their feet at all, and their tackling is very weak.

In the first round of the Cup Tie we are drawn against our old opponents—Thomas's. Next month we shall be able to go more fully into our prospects of success; they are certainly very rosy this year, and we have not the slightest doubt but that the winner of this match will hold the cup for 1887-8. If such a fine back team as our present one has ever figured in these ties, it certainly is not in the memory of men at present at the Hospital; but the Thomas's Forwards are a good lot, and certainly—on paper at any rate—a good deal better than ours. It ought to be a splendid match.

Considering the abnormal strength of our card, we may congratulate our team on a very good result for the first half of the season, viz:—7 wins, 4 losses, 1 draw. One match has been scratched owing to fog, viz:—R.M.A., Woolwich.

INTER-HOSPITAL RUGBY CHALLENGE CUP.

First Round.

Monday,	Jan. 23.	Mary's v. Westminster.
Tuesday,	Jan 24.	King's v. Middlesex.
Thursday,	Jan. 26.	George's v Charing Cross.
Friday,	Jan. 27.	Guy's v. Thomas's
Monday.	Jan. 30.	London v. Bartholomews.

University—a bye.

ASSOCIATION.

At the last moment our Cup tie *v* Dulwich was postponed. On some technical ground they refused to play, and the matter has been referred to the Surrey County Committee.

NOTICE TO CORRESPONDENTS.

The Editors wish it to be understood no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

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